DISRUPTIVE COMBINATION
AGAINST NEUROLOGICAL DISORDERS

BIOMED CONFERENCE

January 2021

NEURONAL NETWORK
GLIAL NETWORK

Theranexus

THERANEXUS:
A UNIQUELY POSITIONNED BIOTECH IN THE CNS SPACE

Our speakers

Franck Mouthon CEO & founder

Top researcher at leading research organization CEA

Co-founder of Theranexus

President of France Biotech

Thierry Lambert CFO

5 years in Transaction Services with PWC UK

ACA-trained (Institute of Chartered Accountants in England and Wales)

8 years as CFO in listed companies mainly in the healthcare sector

Our model

Targets: Innovative targets in the Central Nervous System (CNS) based on unique science of neuro-glia interactions

Approach: Combinations of registered compounds driven by robust business cases and capacity to rapidly demonstrate clinical value

Our pipeline:

- ✓ ***Strong and diversified portfolio of clinical-stage assets***
- ✓ ***Lead candidates in Parkinson's and Batten disease, indications with no treatment available***

A STRONG AND DIVERSIFIED CLINICAL PIPELINE

A phase 2 –Parkinson's Disease asset with positive clinical efficacy data in EDS

THN 102 — Ph2a results Published Q1-2020 — Excessive Daytime Sleepiness linked to Parkinson's disease **No treatment to date**

Industrial partnership expected H1-2021

A uniquely positioned rare-disease asset, entering clinical development in 2021

BBDF 101 — In progress — Ph1-3 (pivotal) under preparation — Batten disease * **No treatment to date**

IND expected mid-2021

Additional clinical-stage programs

THN 201 — Ph1b results Published Q1-2020 — Neurocognitive disorders linked to Alzheimer's disease

THN 101 — Ph1 results Published Q4-2019 — Neuropathic pain

** Exclusive worldwide agreement and license in place with Beyond Batten Disease Foundation (inventor and owner of intellectual property)*

AGENDA

1 THN102 (PARKINSON'S DISEASE)

2 BBDF-101 (JUVENILE BATTEN DISEASE)

3 NEWSFLOW

THN102 CLINICAL DEVELOPMENT SUCCESS

THN102

MODAFINIL:
Wake-promoting drug
Registered in narcolepsy and Obstructive Sleep Apnea

FLECAINIDE:
Drug Repurposed on a novel target
Originally cardiology drug (used here at a low dose) as astrocytic network modulator

P1b sleep deprivation study

Demonstrated:
- Potentiation of the wake-promoting effect of modafinil
- Enlarged spectrum of effect v. modafinil

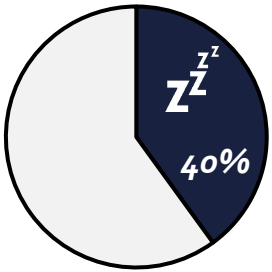
P2a EDS in Parkinson's disease (75 patients in EU & US)

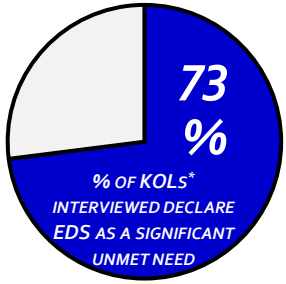
Positive results ✓

Focus on untreated patients with moderate to high EDS
Successful at significantly reducing EDS symptoms

THN102 IS A UNIQUELY POSITIONNED ASSET IN EDS IN PARKINSON'S DISEASE

Excessive daytime sleepiness in Parkinson's disease





More than **2 million patients** (G7)
One of the most debilitating symptoms of the disease

- The **risk of falls** increases by 20% per unit change on the ESS** in PD patients
- The **costs of institutionalization** of Parkinson's disease patients in the US are estimated to $ 7Bn**

Previous EDS candidates failed in Parkinson's

- 3 recent attempts in P2/P3 by pharmas/biotechs ***
- All candidates failed to show any effect even though two of these have shown efficacy in other pathologies

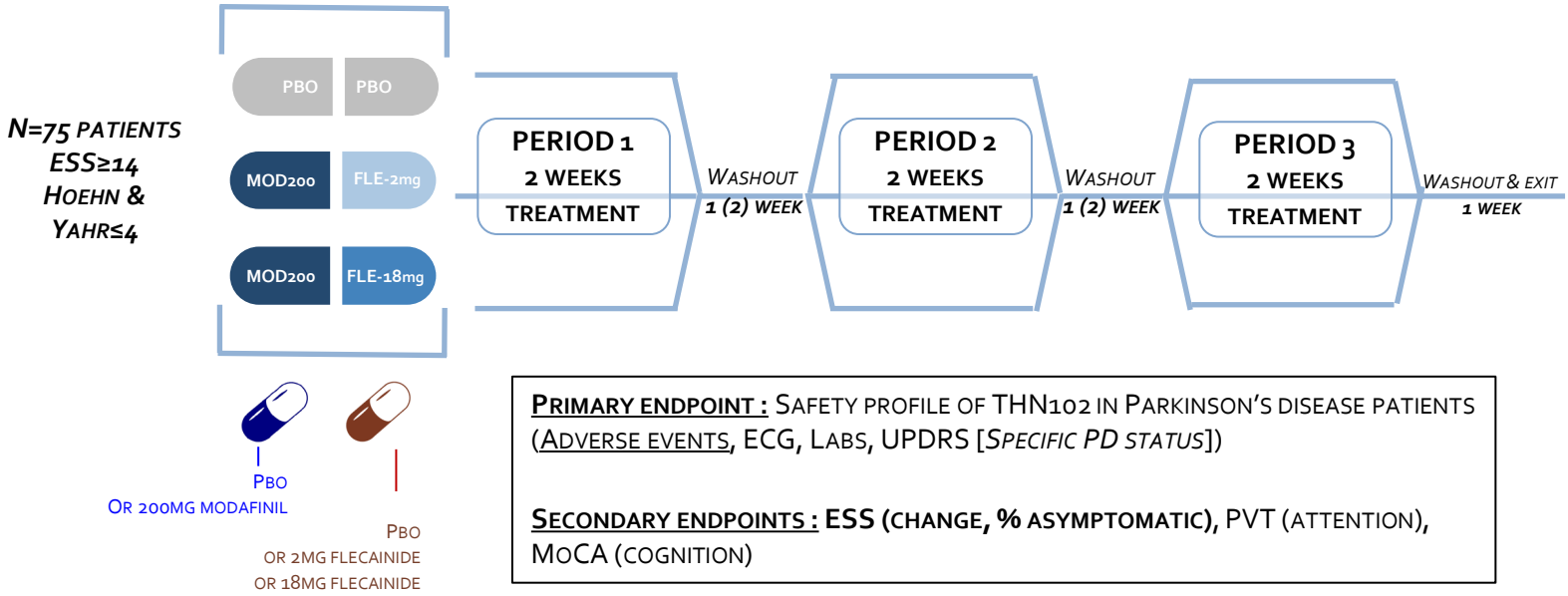
=> There is something specific/different to EDS in PD

A unique opportunity for THN102

**Interviews of 23 KOLs in Europe and in the US (2)*
***Lewin Group report / Michael J. Fox Foundation 2019*
**** In addition to THN102 - JZP-110 (now Solriamfetol) from JAZZ, Pitolisant from Bioprojet Bavisant from Benevolant AI*

THN102 IN EDS IN PARKINSON'S DISEASE: STUDY DESIGN

Randomised, double-blind, placebo-controlled, complete 3-way cross-over phase IIa trial to investigate safety and efficacy of two THN102 doses in subjects with excessive daytime sleepiness associated with Parkinson's disease, PI: Prof JC Corvol, ICM, Paris



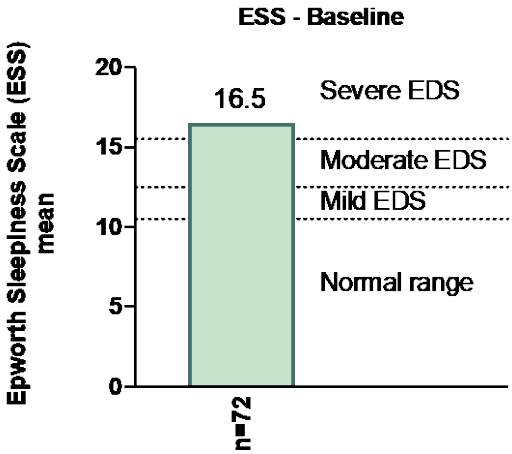
PRIMARY ENDPOINT : SAFETY PROFILE OF THN102 IN PARKINSON'S DISEASE PATIENTS (ADVERSE EVENTS, ECG, LABS, UPDRS [*SPECIFIC PD STATUS*])

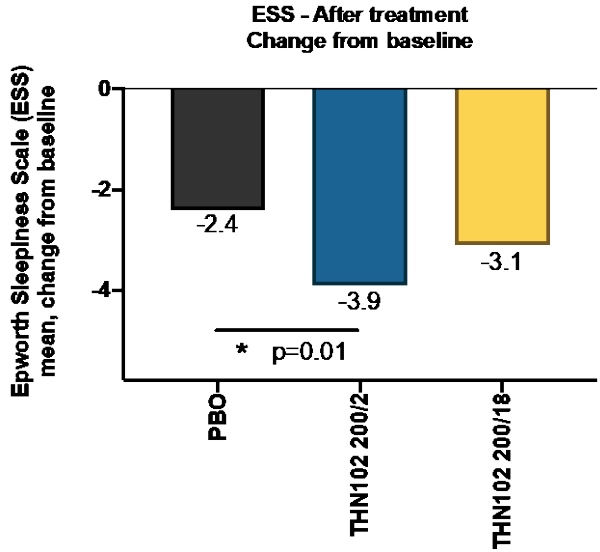
SECONDARY ENDPOINTS : ESS (CHANGE, % ASYMPTOMATIC), PVT (ATTENTION), MOCA (COGNITION)

- Key objective: dose exploration, safety and efficacy in PD patients v. placebo
- Crossover with short exposure the most cost-efficient way to achieve this
- Main drawback: likely to underestimate the size of the response

THN102 IN EDS IN PARKINSON'S DISEASE PATIENTS: CLEAR SUPERIORITY VS. PLACEBO

- Excessive daytime sleepiness (EDS) is assessed using the Epworth Sleepiness Scale (ESS)
- The « normal » range of ESS scores is up to 10. ESS scores of 11-24 represent increasing levels of excessive daytime sleepiness *(Johns, 1991 ; Chen at al, 1995 ; Johns and Hocking, 2004 ; Manni et al, 1999 ; Izci et al, 2008)*



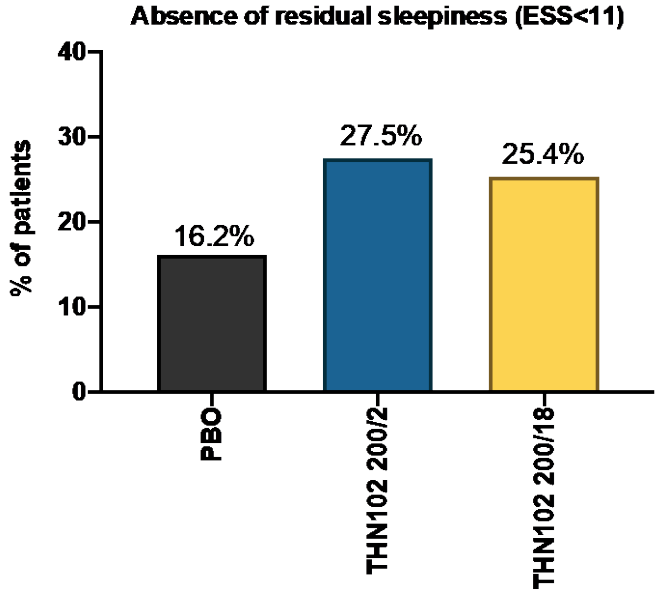


- Significant reduction of ESS in THN102 200/2 group (p=0.012)
- Trial design (short exposure and crossover) enabled exploration of 2 doses v. placebo, but likely to underestimate the full effect of THN102

⇒ **THN102 demonstrates significant improvement v. placebo in EDS in PD patients**

THN102 IN EDS IN PARKINSON'S DISEASE PATIENTS: IMPROVED REMISSION RATE WITH THN102

- Remission is generally defined as ESS< 11, as it is reported that the « normal » range of ESS scores is up to 10 *(Johns, 1991; Chen at al, 1995 ; Johns and Hocking, 2004 ; Manni et al, 1999 ; Izci et al, 2008)*



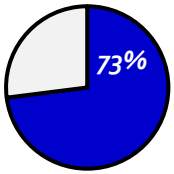
Increase in the % of patients in remission after treatment with THN102 200/2 (P=0,05) and THN102 200/18 (P=0,10)

⇒ **Indicates a strong medical benefit**

THN102 IN EDS IN PARKINSON'S DISEASE PATIENTS: A LARGE MARKET POTENTIAL

1 - A large patient pool

2 - KOLs already convinced of the medical needs



73% of KOLs interviewed declare EDS as a significant unmet need

3 - Favourable medico-economics

- *EDS increases the risk of falls (among the first causes of institutionalization of PD patients)*
- *The costs of institutionalization of Parkinson's disease patients in the US are estimated to $7Bn**

4 – No treatment currently on the market

5 – Favourable pricing benchmarks

Typical prices > 10k$ per patient p.a. in the US

FDA approval	Brand	WAC/patient/yr* ($US as of 03/2020)	Symptom treated	Original SOC /comparator	WAC/patient/yr ($US as of 03/2020)
2014	Northera (droxidopa) Capsules	$70'250	Neurogenic orthostatic hypotension	midodrine	$900
2016	NUPLAZID (pimavanserin) tablets	$38'230	Psychosis	clozapine	$560
2017	XADAGO (safinamide) tablets	$11'900	ON/OFF fluctuations	rasagiline	$6'840
2018	GOCOVRI (amantadine) extended release capsules	$33'140	Levodopa induced dyskinesia	amantadine	$780
2019	Inbrija (levodopa inhalation powder) 42 mg capsules	$12'000	ON/OFF fluctuations	levodopa/ carbidopa ER	$4'130

*WAC: Wholesale Acquisition Cost – estimated based on list price available on GoodRx and Drugs.com websites

A strong blockbuster potential > 1Bn$**

*Lewin Group report / Michael J. Fox Foundation 2019
**Clarivate analytics report

THN102: PARTNERSHIP STRATEGY FOR THN102

Candidate selection | Pre-clinical trials | Clinical trials: Phase I | Phase II | Phase III

THN 102 — BREVET DÉPOSÉ

Market and dimension

Excessive Daytime Sleepiness linked to Parkinson's disease
No treatment to date

Specialists in EDS or CNS

Jazz Pharmaceuticals
SK biopharmaceuticals
Sumitomo Dainippon Pharma
Zambon
Lundbeck
ucb Pharma

Generalists and "big pharma"

NOVARTIS PHARMACEUTICALS
Boehringer Ingelheim
Mitsubishi Tanabe Pharma

DIFFERENT OPTIONS WITH THE AIM OF MAXIMISING VALUE FOR THE COMPANY AND ITS SHAREHOLDERS

INTRINSIC COMMERCIAL POTENTIAL OF PRODUCT: > €1Bn

ADDITIONAL OPPORTUNITIES FOR PARTNERSHIPS:

+ OPTIMIZATION OF SALES FORCES USED FOR PARKINSON'S

+ POSSIBILITY TO REACH NEW MARKET FOR EDS SPECIALISTS

DISCUSSIONS ONGOING WITH SEVERAL POTENTIAL PARTNERS
PARTNERSHIP AGREEMENT EXPECTED S1-2021

AGENDA

1 THN102 (PARKINSON'S DISEASE)

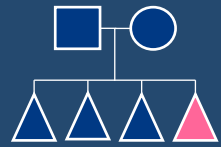
2 BBDF-101 (JUVENILE BATTEN DISEASE)

3 NEWSFLOW

BBDF-101 : DISCOVERY AND EARLY DEVELOPMENT

EPIDEMIOLOGY AND PHYSIOPATHOLOGY OF NCL3

c. 3,000 patients (all NCL types)



Autosomal recessive

Diagnosis in children aged 4 to 8

Blindness

Cognitive decline

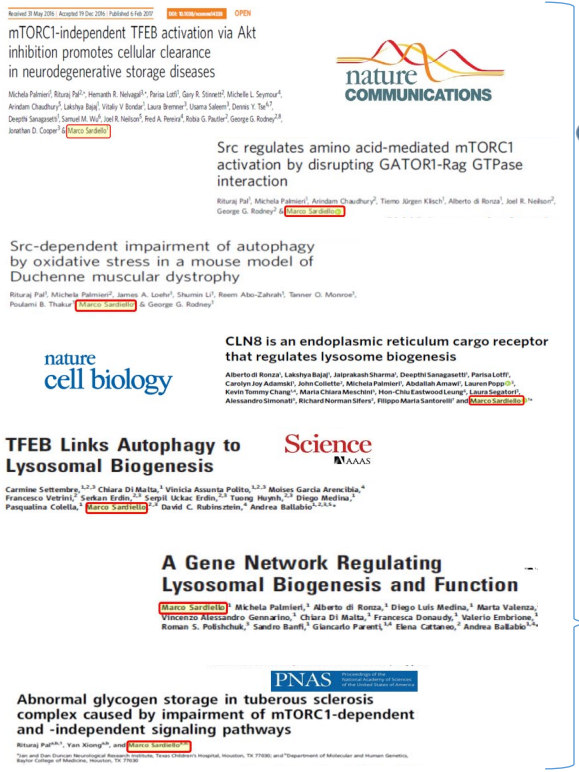
Loss of motor skills

No registered treatment

FOUNDATION	Discovering the mechanics of the disease	Discovering the drug candidate	Development plan design	Agreement with Theranexus
BEYOND BATTEN DISEASE FOUNDATION Created in 2008 by Craig Benson Investing on average c. 2M$ p.a. in academic research in CLN3	Financing academic studies Discovery of disease mechanisms by Dr Sardiello of Baylor College of medicine (*Palmieri et al. Nat Com 2017)*	BBDF-101 discovered by Dr Sardiello's team at Baylor College Trehalose IV + Miglustat combination Patent granted in USA, valid until 2036	Development plan design Pre-IND meeting	Global exclusive license, December 2019

BBDF-101 AMBITION: REDUCE NEURONAL DEATH AND SLOW THE PROGRESS OF THE DISEASE

Discovery by Dr Sardiello of Baylor College of Medicine



mTORC1-independent TFEB activation via Akt inhibition promotes cellular clearance in neurodegenerative storage diseases

nature COMMUNICATIONS

Src regulates amino acid-mediated mTORC1 activation by disrupting GATOR1-Rag GTPase interaction

Src-dependent impairment of autophagy by oxidative stress in a mouse model of Duchenne muscular dystrophy

nature cell biology

CLN8 is an endoplasmic reticulum cargo receptor that regulates lysosome biogenesis

TFEB Links Autophagy to Lysosomal Biogenesis

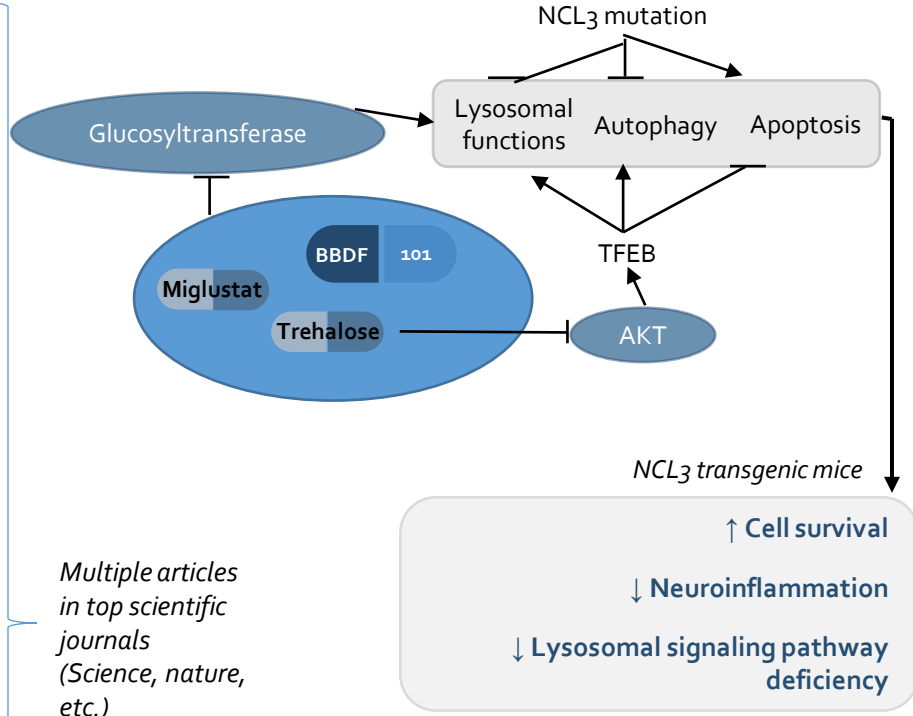
Science AAAS

A Gene Network Regulating Lysosomal Biogenesis and Function

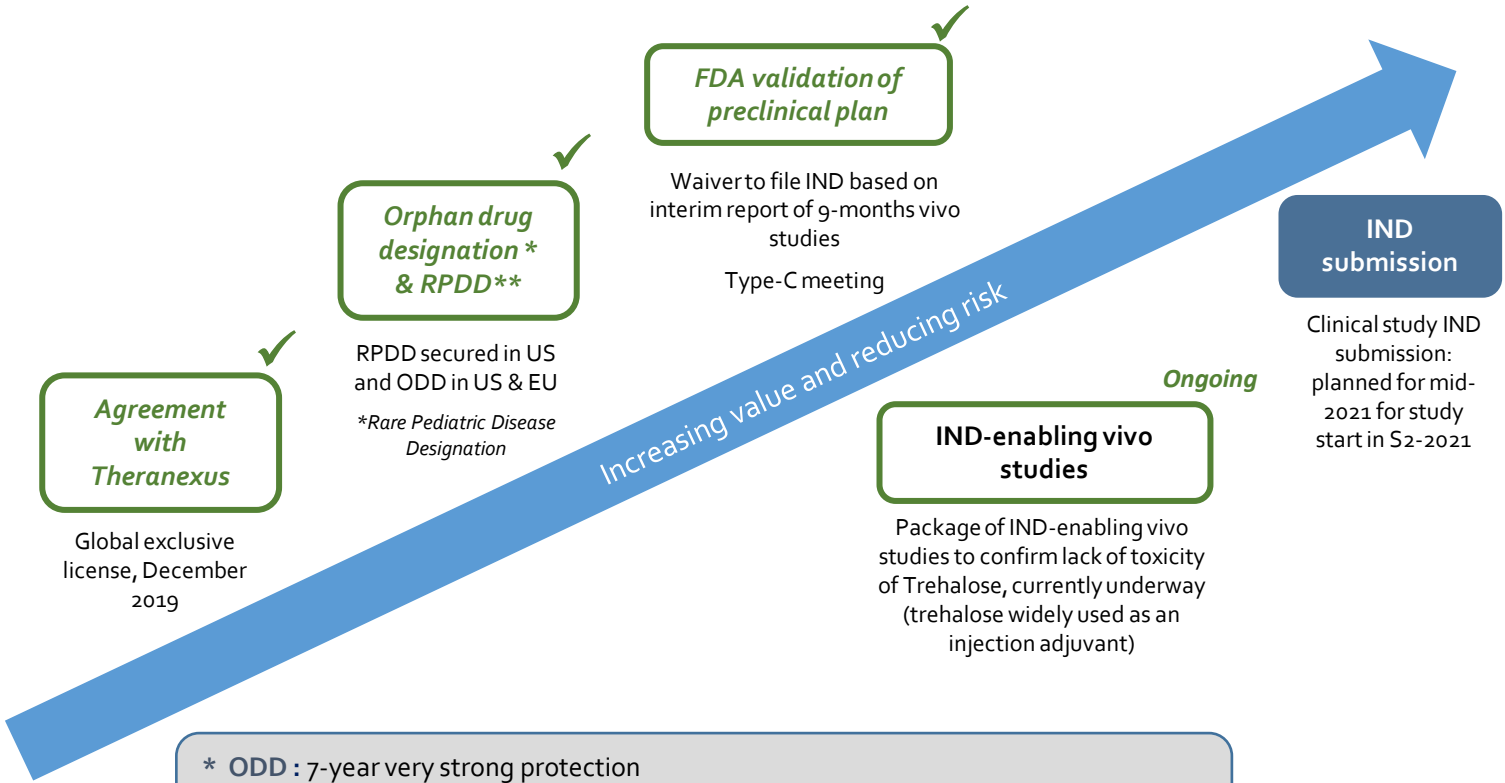
PNAS

Abnormal glycogen storage in tuberous sclerosis complex caused by impairment of mTORC1-dependent and -independent signaling pathways

Multiple articles in top scientific journals (Science, nature, etc.)



REGULATORY ACHIEVMENTS AND DEVELOPMENT SINCE AGREEMENT WITH BBDF



✓ ***Agreement with Theranexus***

Global exclusive license, December 2019

✓ ***Orphan drug designation * & RPDD*****

RPDD secured in US and ODD in US & EU

**Rare Pediatric Disease Designation*

✓ ***FDA validation of preclinical plan***

Waiver to file IND based on interim report of 9-months vivo studies

Type-C meeting

Ongoing

IND-enabling vivo studies

Package of IND-enabling vivo studies to confirm lack of toxicity of Trehalose, currently underway (trehalose widely used as an injection adjuvant)

IND submission

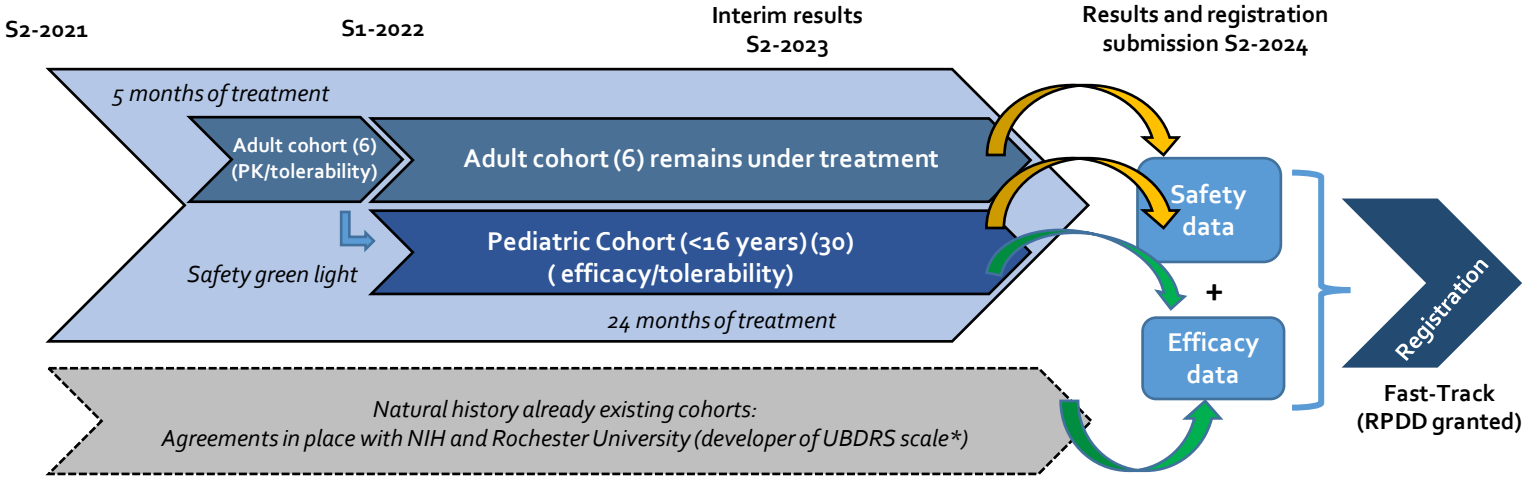
Clinical study IND submission: planned for mid-2021 for study start in S2-2021

* **ODD :** 7-year very strong protection

****RPDD:** fast-track registration + transferable rare disease voucher (obtained from the FDA at the time of registration, market value c. $100M)

BBDF-101 : PHASE I-III PIVOTAL PROGRAM

- Adolescent/adult cohort of 6 patients over a period of 5 month
- Pediatric cohort of 30 patients over a period of two years with an intermediate assessment at 12 month
- **Open label:** Evaluation based on comparing the disease progression in patients recruited for the trial against the natural course of the disease as described by several existing groups of NCL3 patients
- Budget until full results (end 2024): c. 15M€



** Reference scale for Batten disease patients evaluation*

COMPETITIVE ENVIRONMENT AND MARKET OPPORTUNITY

COMPARABLES

ZAVESCA® 100 mg (miglustat) capsules	Myozyme® (alglucosidase alfa)	elaprase® (idursulfase)	Brineura® (cerliponase alfa)
6,000 cases USA 5,000 cases EU	5,000 cases USA 1,800 cases EU	500 cases USA 400 cases EU	500 cases USA 250 cases EU
Gaucher disease	Pompe disease	Hunter syndrome	NCL2
$240,000/yr/patient €55,000/yr/patient	$300,000/yr/patient	$375,000/yr/patient	$700,000/yr/patient
Peak (2014): $113m	Peak (2018): $947m	Peak (2018): $634m	Peak (2027): $359m (f)

Notes: All drugs have 'Orphan Drug Designation' status and Brineura obtained a pediatric voucher (sold for $120m)

MARKET ACCESS

Access to patients highly structured – Direct sales force of limited size

Partnership already in place with main US patient association (BBDF)
Batten disease KOLs involved in clinical study

COMPETITION IN CLINICAL DEVELOPMENT

NCL3 AAV9 **gene therapy** (Amicus Therapeutics)

- Aim = treat very young patients (3-10 yeas old)
- Currently in P1/2 (completion expected Dec 2022)

Open IND **Polaryx Therapeutics**

No clinical plan announced to date

Rochester University review of treatments potential
(Masten et Al. 2020)

"[…] a combination of multiple therapeutic approaches may be necessary to provide optimal benefit"
"combination therapy may provide the best chance for meaningful disease modification"

⇒ **Gene therapy not a 'silver bullet' in this indication**
⇒ **All patients (even those young enough to be benefit from gene therapy) likely to require additional treatment**

➔ **Easy market access and strong peak sales potential**
➔ **BBDF-101 very likely to fit within treatment even if other solutions emerge**

AGENDA

1 THN102 (PARKINSON'S DISEASE)

2 BBDF-101 (JUVENILE BATTEN DISEASE)

3 NEWSFLOW

A STRONG NEWSFLOW IN 2021

THN102 partnership agreement: S1-2021

THN 102

BBDF-101 clinical study IND: mid-2021

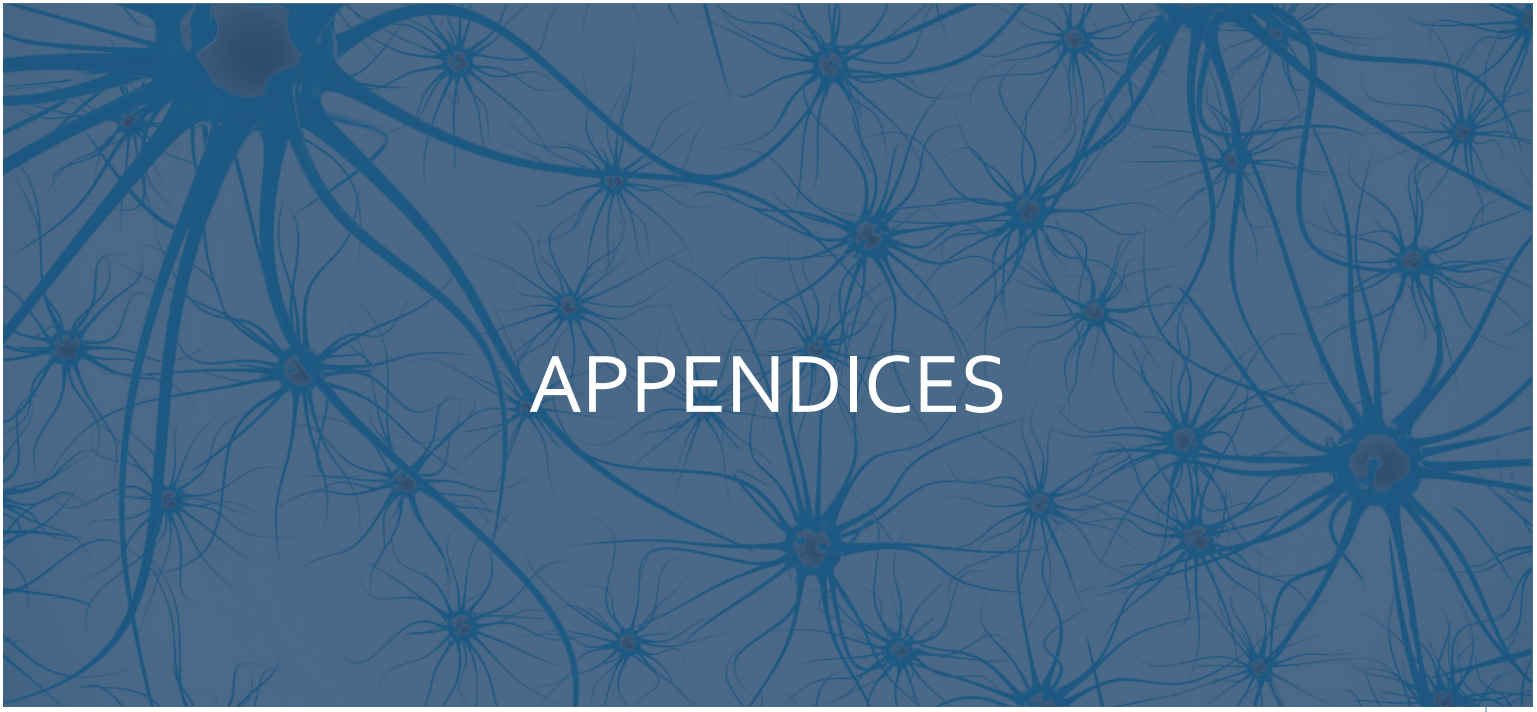
BBDF-101 clinical programme launch: S2-2021

BBDF 101

Continuing programs stemming from the discovery platform

THN XX

AGENDA



P&L H1 2020

In K€ (french GAAP)	2019	H1 2019	H1 2020
Operating income	**617**	**574**	**271**
Other purchases and external charges	5 426	2 897	2 271
Salaries and benefits	2 353	1 215	1 174
Depreciation and amortization	154	30	188
Other operating expenses	61	10	0
Operating result	**(7 377)**	**(3 587)**	**(3 363)**
Net financial income	(241)	(132)	163
Corporate tax	2 038	941	330
Net income	**(5 580)**	**(2 778)**	**(2 870)**

REDUCED EXPENSES : END OF CLINICAL STUDIES ON TH102 AND THN101

MAINLY RESEARCH TAX CREDIT

Cash at December 31, 2020 : 11.2 M€

Equity line IRIS (structured by Kepler-Chevreux):
Maximum of €8.4M over 12 months

CAPITAL MARKETS SNAPSHOT

FINANCIAL DATA

ISIN : FR0013286259 - **Mnemo:** ALTHX

Market : Euronext Growth

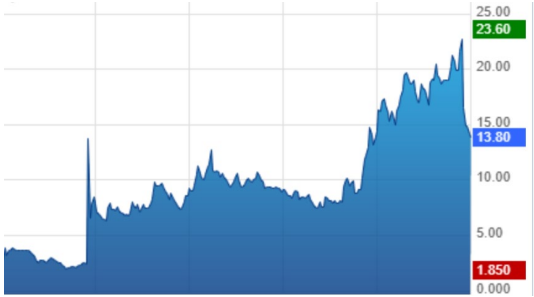
Stock price as at January 22th 2021 : 14,15 €

Market cap : €58M

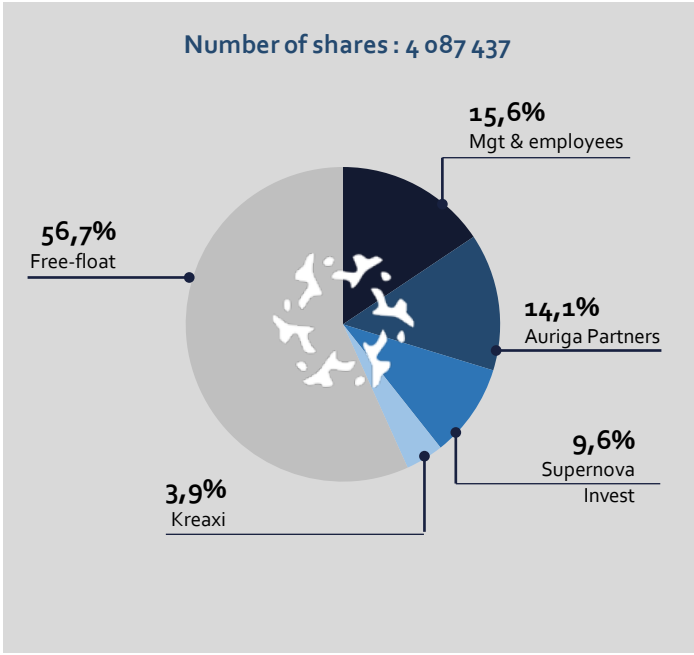
Brokers coverage : Bryan, Garnier & Co, Portzamparc

Liquidity contract : Portzamparc

1-YEAR STOCK PRICE PERFORMANCE



SHAREHOLDERS



NEUROLEAD : STRENGTHENING THE LEAD GENERATION PLATFORM

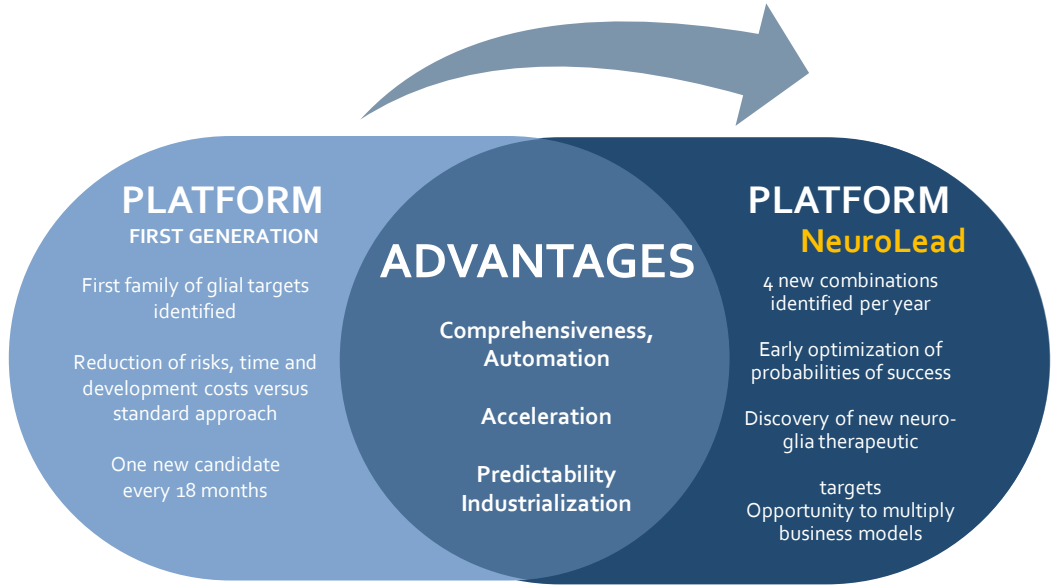
NeuroLead

- Development of a drug candidate generating platform based on neuron-glia interactions
- Prestigious partners:

- Capacity to build on the latest innovations in neuroscience and Deep Learning

- Funding package of €6.2m from BpiFrance, for the consortium managed by Theranexus

A NEW PLATFORM FOR DRUG CANDIDATE GENERATION FOCUSED ON MEDICAL AND INDUSTRIAL VALUE



FROM PIONEER TO REFERENCE PLAYER IN NEUROLOGY

THERANEXUS ORGANISATION

Franck Mouthon CEO & founder

Top researcher at leading research organization CEA

Co-founder of Theranexus

President of France Biotech

Mathieu Charvériat CSO & founder

PhD in Neuroscience

Ex-researcher at leading research organization CEA

Co-founder of Theranexus

Julien Veys CBDO

Business Developer specialized in CNS sector

As head of BD negotiated sale of Trophos (French CNS biotech to Roche)

Werner Rein CMO

Ex global VP of CNS clinical development for Sanofi

MD in neurology and psychiatry – was resident in Tübingen University Hospital

Thierry Lambert CFO

5 years in Transaction Services with PWC UK

ACA-trained (Institute of Chartered Accountants in England and Wales)

8 years as CFO in listed companies mainly in the healthcare sector

19 employees, mostly R&D scientists, clinical operations managers and business developers

In-house vitro capabilities

Vivo capabilities in partnership with leading academic institutions

Structured partnerships with leading institutions