



Transforming life for people
with Parkinson's disease

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IRLAB: Better positioned than ever before

- In partnership with a global pharma company
- Strong cash position and growth
- Two programs with exciting prospects in clinical Phase IIb development
- Preclinical development candidates towards clinical trials
- Interest in IRLAB assets is high and growing

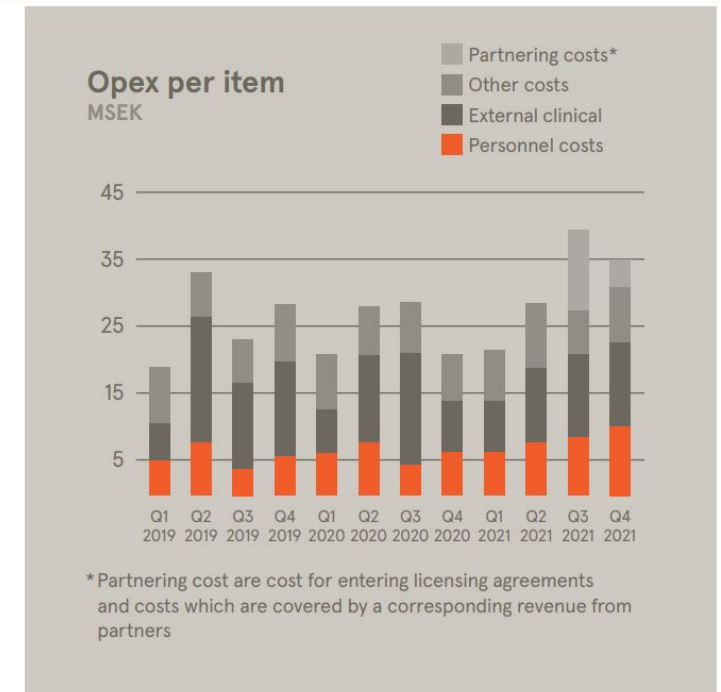
We have every reason to view the future with confidence

Financial summary 2021

- Strong cash position
- Expansion of operations
- Higher activity in clinic and labs

JANUARY–DECEMBER 2021 compared with January–December 2020

	Jan–Dec 2021	Jan–Dec 2020
Net sales	207,782	0
Operating profit/loss	52,576	-91,458
Profit/loss for the period	51,781	-91,653
Earnings per share before and after dilution, attributable to the parent company's shareholders	1.00	-1.92
Number of shares at the end of the period, including subscribed but not yet registered shares	51,748,406	51,748,406
Cash and cash equivalents	401,897	277,009
Equity per share	7.72	6.72
Average number of employees	22	18
Of which in R&D	20	17



Ipsen partnership: Significant revenue and reduced costs for mesdopetam facilitate growth

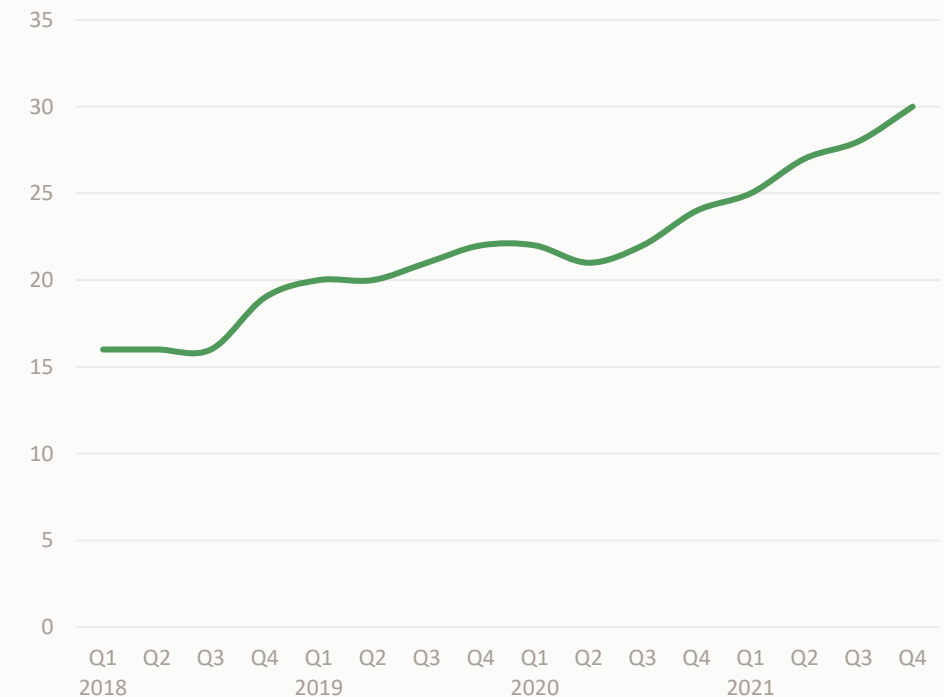
IRLAB to the next level business-oriented company

- Increased R&D
- Increased clinical operations
- Increased IR and business development

Organizational focus on

- Pirepemat Phase IIb – Prevention of falls
- P001 – To treat apathy and improve cognitive function & brain health
- P003 – Transforming treatment of core symptoms of Parkinson's

Employees 2018-2021
Head count at end of period



Path to deliver strong growth

Foundation for transformative treatments in Parkinson's

2020 - 2023

Mesdopetam

Successful completion of Phase IIb/III study

Pirepemat

Successful completion of Phase IIb study

Pipeline

Initiate Phase I studies with new candidates

Deepen AI in the ISP methodology

Business development

Licensing agreement for the mesdopetam project

Continued work toward new revenue-generating collaborations

Building for the future

2023 - 2025

Mesdopetam

Phase III studies initiated with partner Ipsen

Pirepemat

Initiating Phase III studies

Pipeline

Development of new drug candidates toward clinical proof-of-concept in phase Ib and phase II

Continued ISP development

Business development

Pirepemat partnering &

Continued work toward new revenue-generating collaborations

Delivering first-in-class treatments transforming standard of care in Parkinson's

2025 - 2027

Mesdopetam

Application for marketing authorization

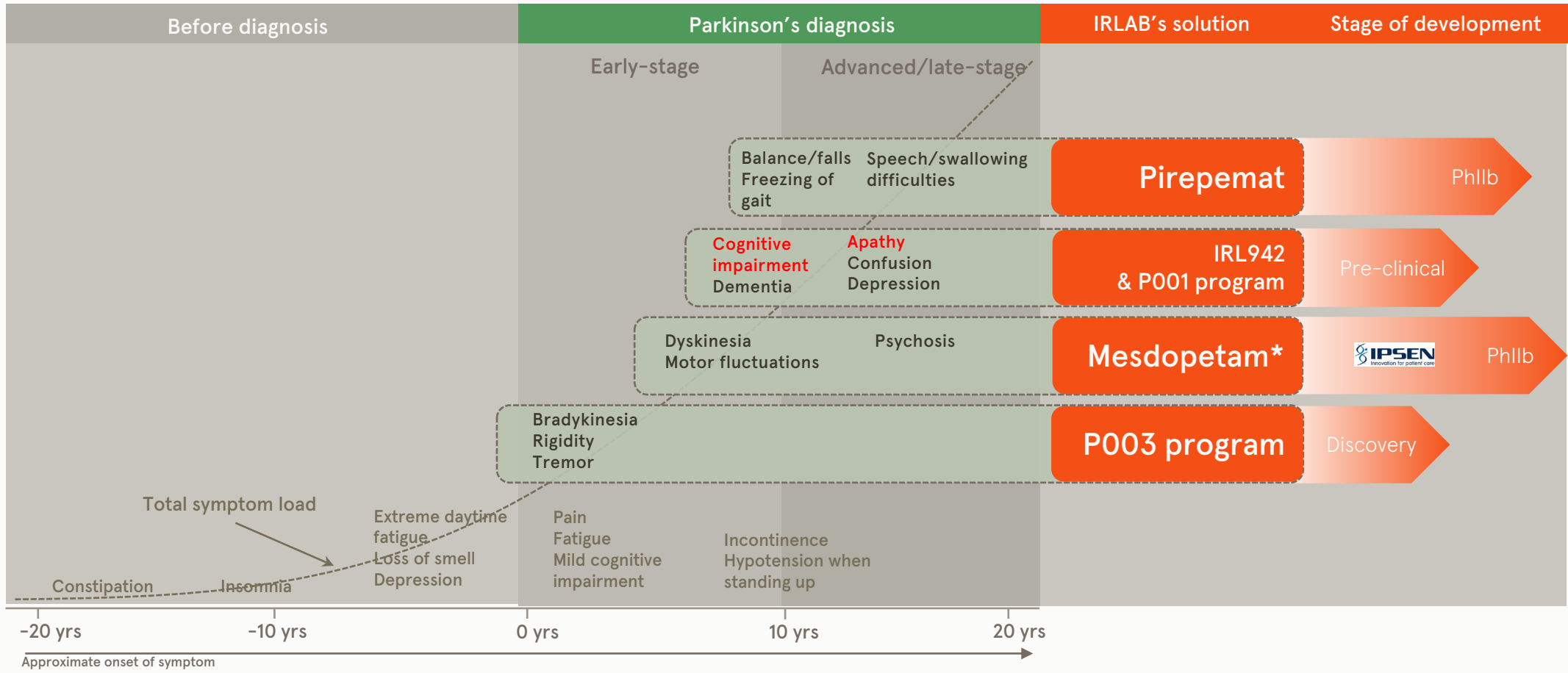
Pirepemat

Application for marketing authorization

Pipeline

Development of new drug candidates: Phase II PoC and initiation of Phase III

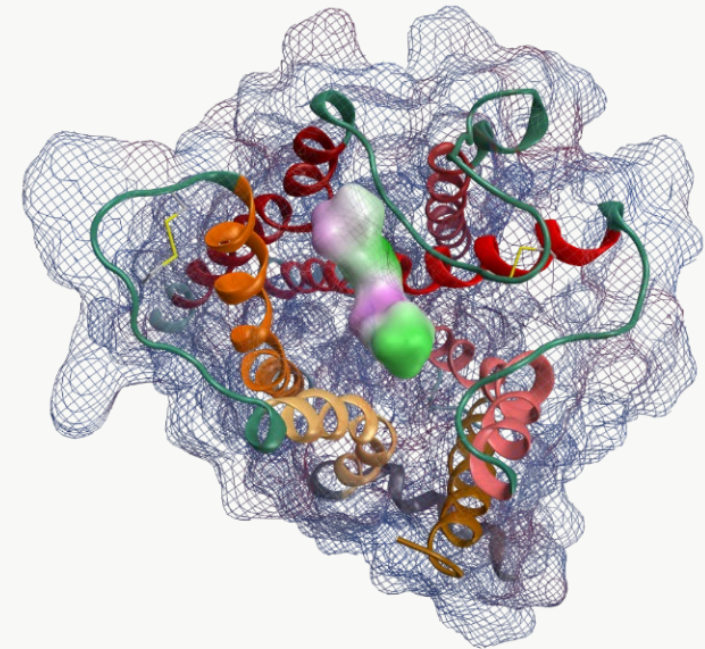
Living with Parkinson's: IRLAB transforms the treatment algorithm



Pipeline generated by proprietary technology platform: ISP

ISP – a new level of rational, systems-oriented drug discovery

- Advanced systems biology interlinked with drug design and machine learning (ML, AI) techniques
- Enabled through extensive, high quality ISP database



IRLAB's ISP generates highly promising drug candidates

Portfolio transforming treatment of patients with Parkinson's

	DISCOVERY	PRE CLINICAL	PHASE I	PHASE IIA	PHASE IIB	PHASE III
PARKINSON'S DISEASE – LEVODOPA-INDUCED DYSKINESIAS (LIDS)						
Mesdopetam (IRL790)	D3 antagonist					
PARKINSON'S DISEASE – PSYCHOSIS						
Mesdopetam (IRL790)	D3 antagonist					
PARKINSON'S DISEASE – FALLS						
Pirepemat (IRL752)	PFC enhancer					
PARKINSON'S DISEASE – DEMENTIA						
Pirepemat (IRL752)	PFC enhancer					
NEURODEGENERATIVE DISORDERS – AGING						
IRL942 & 1009	P001 program					
PARKINSON'S DISEASE						
P003	Dopamine substitution					

Mesdopetam *

- To increase "good ON"-time through reduction of dyskinesias (PD-LIDs)
- To treat psychosis in Parkinson's (PD-P)

Pirepemat

- Improve balance and reduce falls in Parkinson's (PD-Falls)

P001

- P001 – To treat apathy, improve cognitive function & brain health

P003

- Long-acting, orally active compounds with efficacy on par with levodopa for the treatment of Parkinson's disease

Partnering strategy

- **2021:** Partnered with IPSEN in a global licensing deal

- Partner based on phase IIb data

- Option to partner based on preclinical PoC or Phase I clinical studies

- Option to partner based on preclinical PoC or Phase I clinical studies



Preclinical development: P001 and P003 projects

P001: To treat apathy, improve cognitive function & brain health
(target populations: PD, dementias, schizophrenia, depression)

P003: Long-acting parkinson treatment with efficacy equivalent to L-DOPA /
apomorphine

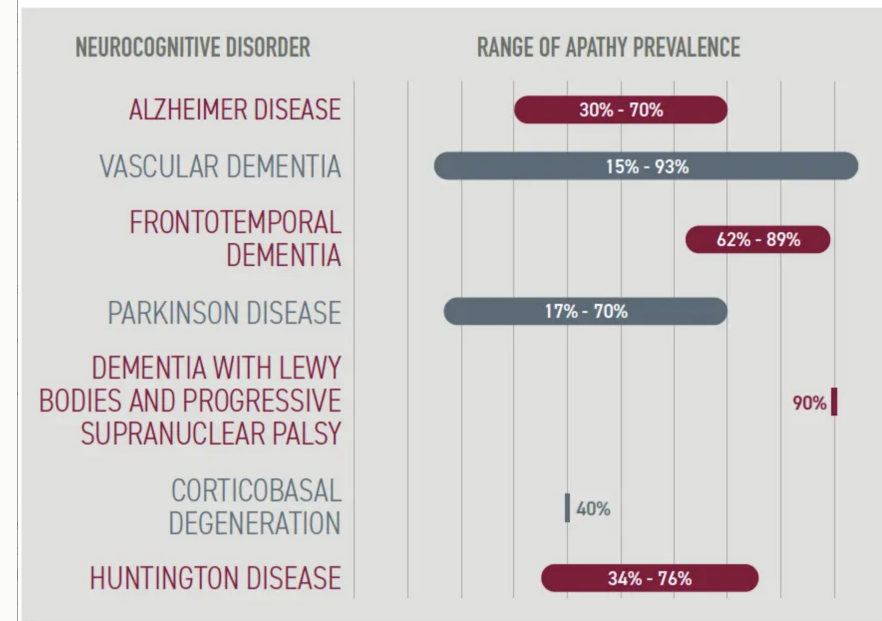
P001 – To treat apathy, improve cognitive function & brain health

- To treat apathy, improve cognitive function is a large unmet need

P001 opportunity :

- Market: **Over 10 million US citizens may be affected by apathy**
- **No approved treatments**
- Disruption of frontal-subcortical circuits implicated in the pathogenesis of apathy and cognitive decline*
- **IRL942 and follow-on compounds** show unique activation of frontal-subcortical circuits

Figure. Apathy Among Individuals With Neurocognitive Disorders^{1,6,9-11}

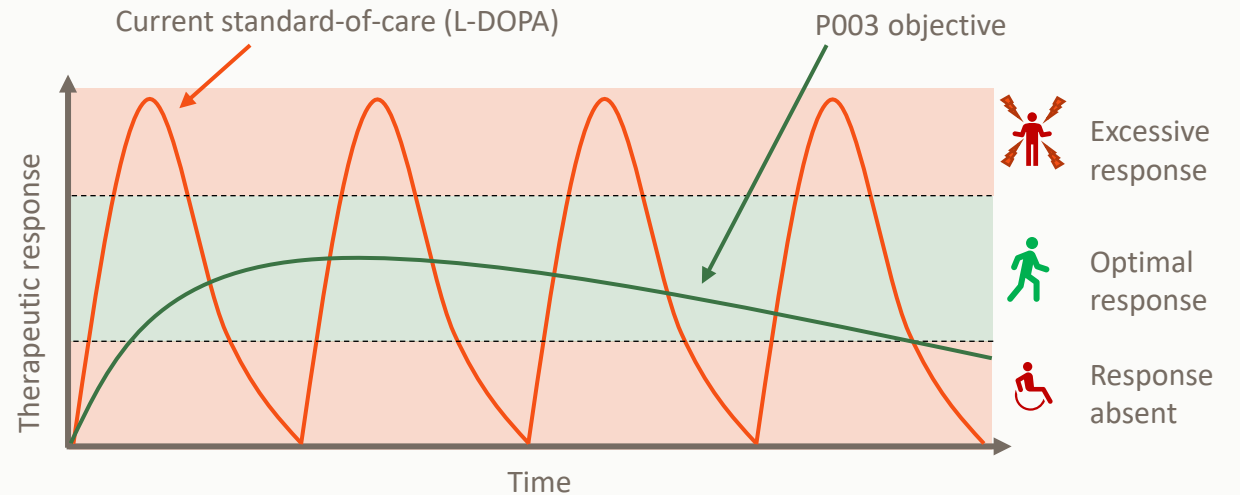


P003 – next generation Parkinson treatments

- Long-acting Parkinson treatment with efficacy equivalent to L-DOPA / apomorphine
- Aimed at treatment of core symptoms of Parkinson's disease
- Potential to transform treatment paradigm in PD

P003 status

- 1st generation: lead optimization on-going
- 2nd generation: candidate identification through structural chemistry on-going



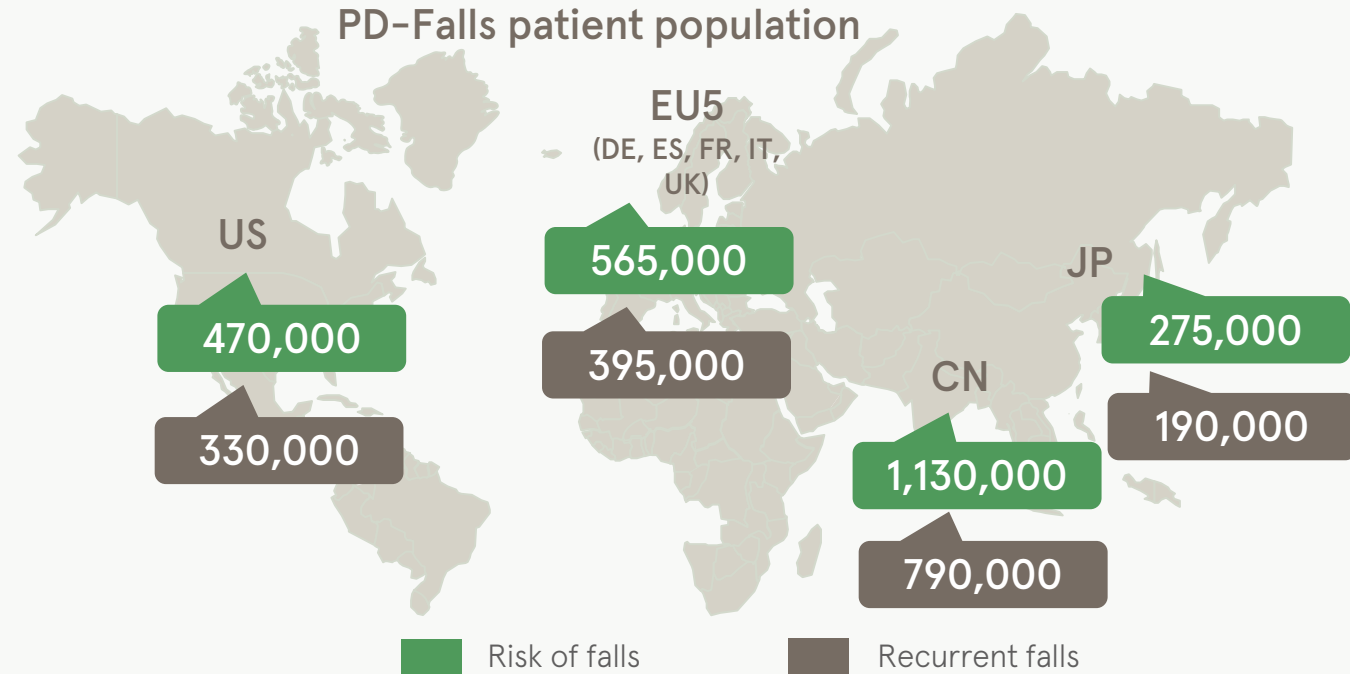


Pirepemat (IRL752)

Improve balance and reduce falls in Parkinson's (PD-Falls)

Pirepemat is designed to improve balance and reduce falls in Parkinson's

- Large unmet need
- **45% of all people with Parkinson's fall recurrently**
- Impaired balance and a fear of falling significantly impair the daily lives of many with Parkinson's
- **Pirepemat is designed to improve balance and reduce falls** by strengthening nerve cell signalling in the cortex via action at 5HT7 and alpha-2 receptors
- The **cost of treatment for a fall** injury is estimated to about **30,000 USD** in elderly > age 65



IRLAB addresses a new, untapped market

Impaired balance leading to falls in Parkinson's have high prevalence and represent a great unmet medical need. There are currently no approved drugs.

Clinical Phase IIb: Impaired balance/Falls

“A Phase IIb to evaluate the effects of pirepemat on falls frequency as compared to placebo.”

Study IRL752C003

Primary objective

- To evaluate the effects of pirepemat on **falls frequency** as compared to placebo.

Secondary & other objectives

- To evaluate the effects of pirepemat on **cognitive functions** assessed with Montreal Cognitive Assessment (MoCA), as compared to placebo.
- To evaluate the effects of pirepemat on **Parkinson's disease symptoms** assessed with Unified Parkinson's Disease Rating Scale (MDS-UPDRS) as compared to placebo.
- To evaluate the effects of pirepemat on **postural dysfunction**, tandem walking and single leg stance test compared to placebo.
- To evaluate the effects of pirepemat on **global function** assessed with Clinicians Global Impression of Severity (CGIS), as compared to placebo.
- To examine the relationship between dose and plasma concentration of pirepemat and pharmacodynamic effects.



Mesdopetam (IRL790)

Improve motor function through prevention and reduction of dyskinesias (LIDs)

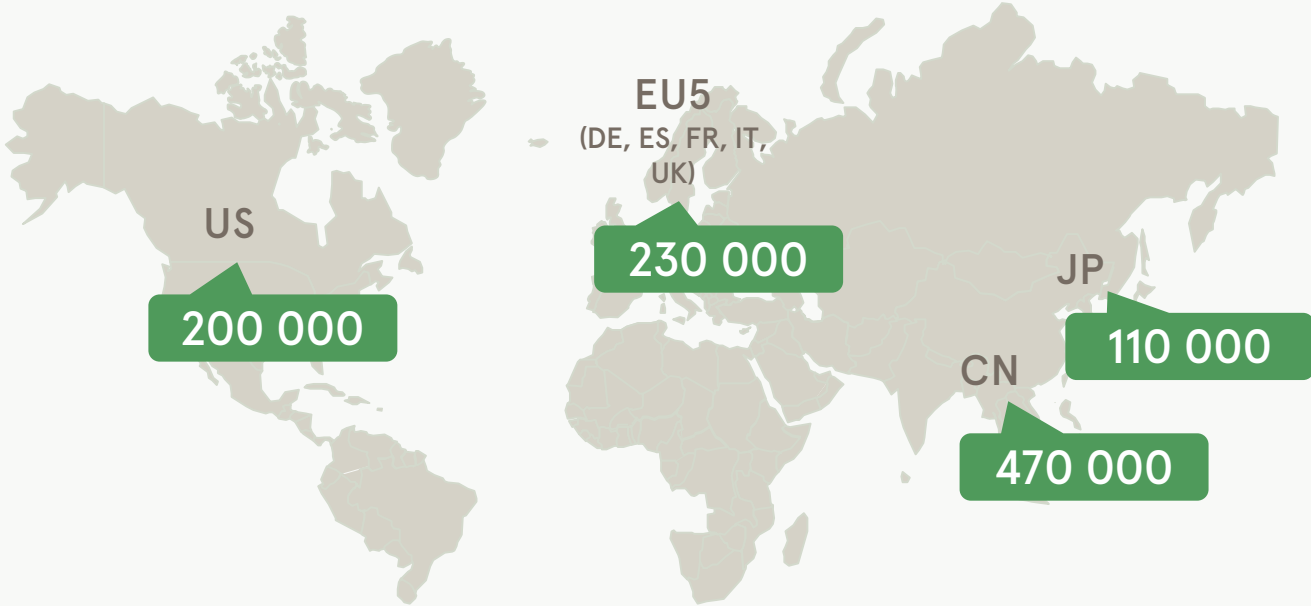
Treatment and prevention of psychosis in Parkinson's (PD-P)

- Currently in development with partner Ipsen who holds an exclusive global license to develop and commercialize mesdopetam
- (<https://www.irlab.se/press-releases/ipsen-and-irlab-enter-exclusive-worldwide-licensing-agreement-aimed-to-improve-the-lives-of-people-living-with-parkinsons-disease//>)

Parkinson’s disease levodopa-induced dyskinesia – an unmet need

- >30% of people with Parkinson’s disease develop LIDs
- Dyskinesias overshadow the necessary treatment benefits of levodopa treatment and reduces “good ON”-time
- To increase “good ON”-time by reducing dyskinesias is a great unmet medical need
- D3 receptor amplification play a key role in the development of LID
- **Mesdopetam** reduces dyskinesias and increases “good ON”-time by targeting dopamine D3 receptors

PD-LIDs patients globally



Wide clinical potential in unmet medical needs in neurology

PD-LIDs

Levodopa-induced dyskinesias

- Affects about 25% of patients with Parkinson's
- Few treatment options, great unmet medical need

1 million

patients in 8MM*

PD-P

Parkinson's disease psychosis

- Affects about 35% of patients with Parkinson's, often associated with cognitive impairment
- Few treatment options, great unmet medical need

1,5 million

patients in 8MM*

TD

Tardive dyskinesia

- Affects about 25% of psychiatric patients receiving treatment with antipsychotic drugs
- Few treatment options, great unmet medical need
- Strong evidence links DA D3 receptor to underlying disease

~ 3 million

patients globally

Inbjudan till IRLAB:s kapitalmarknadsdag – Insikter om vår tillväxtstrategi

Program

- Start klockan 12.15 den 22 mars 2022
- Helio G30, Grev Turegatan 30 i Stockholm.
- Eventet inleds med stående lunch och beräknas sluta klockan 15.15.
- Presentationer kommer hållas kl. 13.00–15.00 av
 - Nicholas Waters, CEO,
 - Joakim Tedroff, CMO,
 - Representanter för Ipsensledning
 - Keyopinion leaders (KOLs) från både USA och Europa.
 - Representanter från IRLAB:s ledning kommer att finnas tillgängliga för diskussioner.

Delta på plats eller online

- För att delta i kapitalmarknadsdagen, på plats eller digitalt, vänligen registrera dig genom att fylla i formuläret på <https://tv.streamfabriken.com/irlab-cmd-2022> senast den 8 mars.



22/3



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IRLAB is a Swedish research and drug development company that focuses on developing novel treatments in Parkinson's disease. The company's most advanced candidates, mesdopetam (IRL790) and pirepemat (IRL752), both of which completed Phase IIa-studies, intends to treat some of the most difficult symptoms related to Parkinson's disease: involuntary movements (PD-LIDs), psychosis (PD-P) and symptoms linked to cognitive decline such as impaired balance and increased risk of falls (PD-Falls). Through the proprietary research platform, ISP (Integrative Screening Process), IRLAB discovers and develops unique drug candidates for diseases related to the central nervous system (CNS), where significant growing medical needs exist. In addition to the clinical candidates, the ISP platform has also generated several CNS programs that are now in preclinical phase.