




# Toward clinical breakthroughs based on leading science

RedEye Life Science Day, Stockholm 19 Nov 2019

Pekka Simula, CEO

# Disclaimer

- This presentation does not intend to provide a thorough and detailed view of Herantis Pharma Plc ('Company'). The information provided in this presentation shall not be considered sufficient for making any investment decisions related to the Company. Anyone considering an investment in the Company shall read and consider carefully all information provided in the formal prospectus approved by Finland's Financial Supervisory Authority (Finanssivalvonta).
- This presentation may include forward-looking statements, estimates, and calculations related e.g. to the Company and its markets. Such forward-looking statements, estimates, and calculations are based on expectations and assumptions of the Company, which may be inaccurate or untrue. They also involve known and unknown risks and other factors, which might cause any estimates made by the Company to materially deviate from those actualized, including the operations, financial situation, and achievements of the Company. The Company cannot be held liable for any such deviations or for any actions taken by any party based on this presentation. Known risks related to the future of the Company and its business have been described in the formal prospectus approved by Finland's Financial Supervisory Authority (Finanssivalvonta).



# Breaking the boundaries of standard therapeutic approaches

3



# Herantis' target indications

## Parkinson's disease (PD)



**PD** is an incurable brain disease whose first symptoms include tremors, muscle stiffness

- Symptoms grow worse with disease progression
- Known drugs only treat motor symptoms, only for a while

**Lymphedema (LE)** is chronic, progressive swelling due to accumulation of lymph

- Common consequence of cancer therapies
- Disabling, disfiguring and painful disease
- No efficacious therapies

## Secondary lymphedema



## Parkinson's facts:

- Second most common neurodegenerative disease: **7-10 million patients**
- Estimated annual financial burden of PD is **\$50 billion**
- Progression-stopping therapy would save the society over **\$400,000 per patient** in the USA\*

\*University of Pennsylvania's National Parkinson Foundation

## Lymphedema facts:

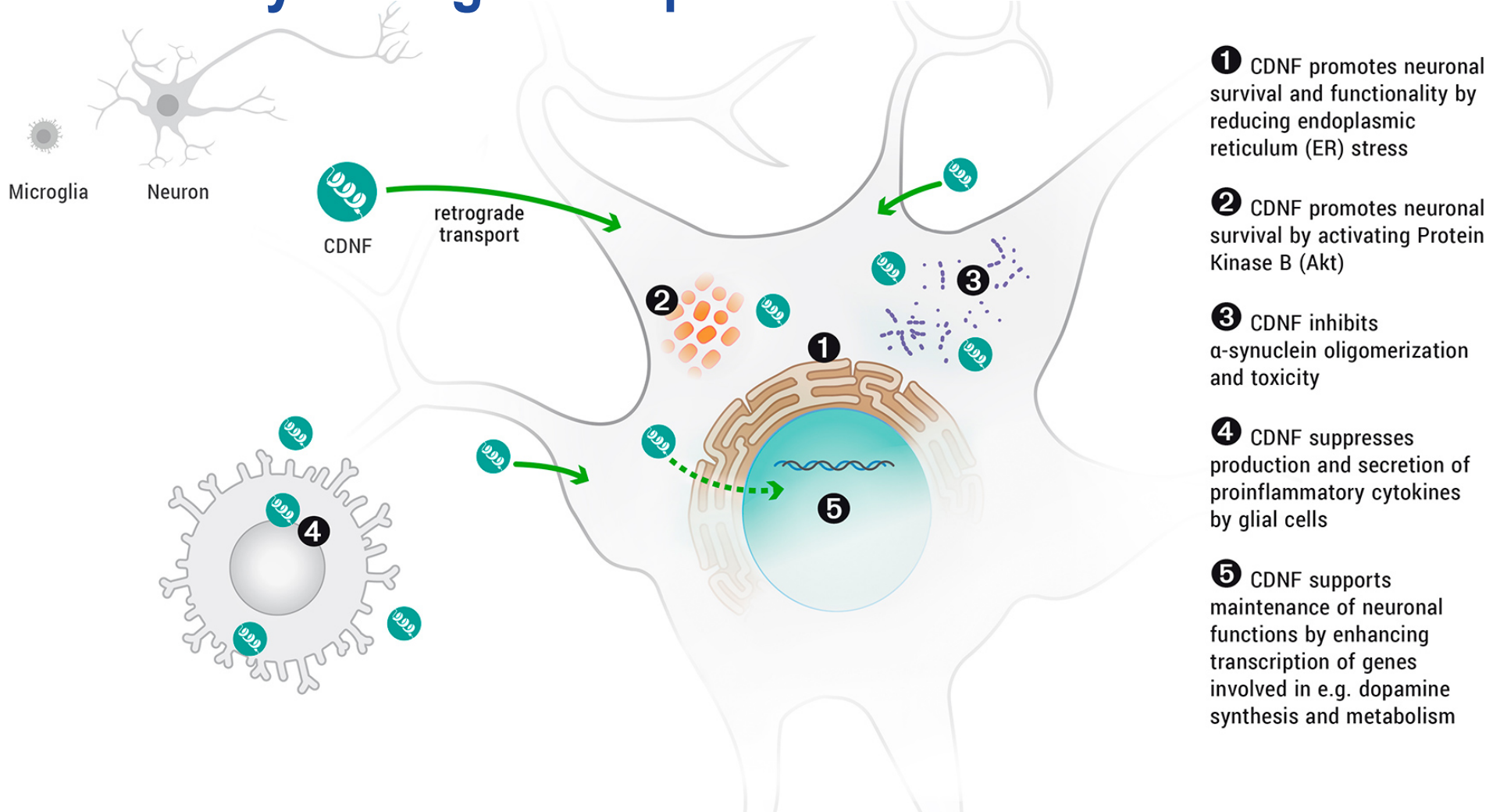
- 140 million LE patients
- 2 million breast cancer diagnosis annually
  - 30% of patients who undergo mastectomy will develop Breast Cancer Associated Lymphedema (BCAL)
- In USA, **annual cost** of lifelong symptomatic BCAL treatment \$10,000 - \$20,000



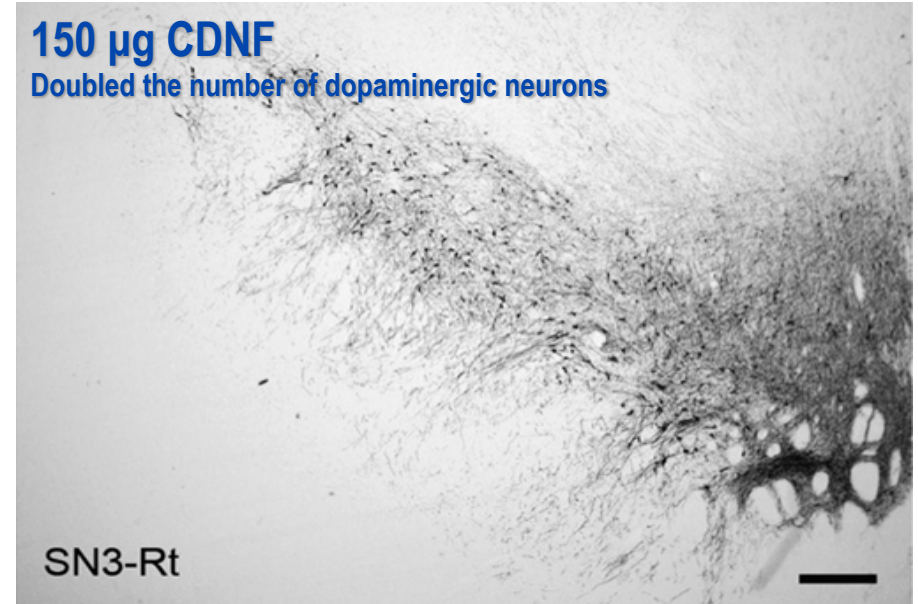
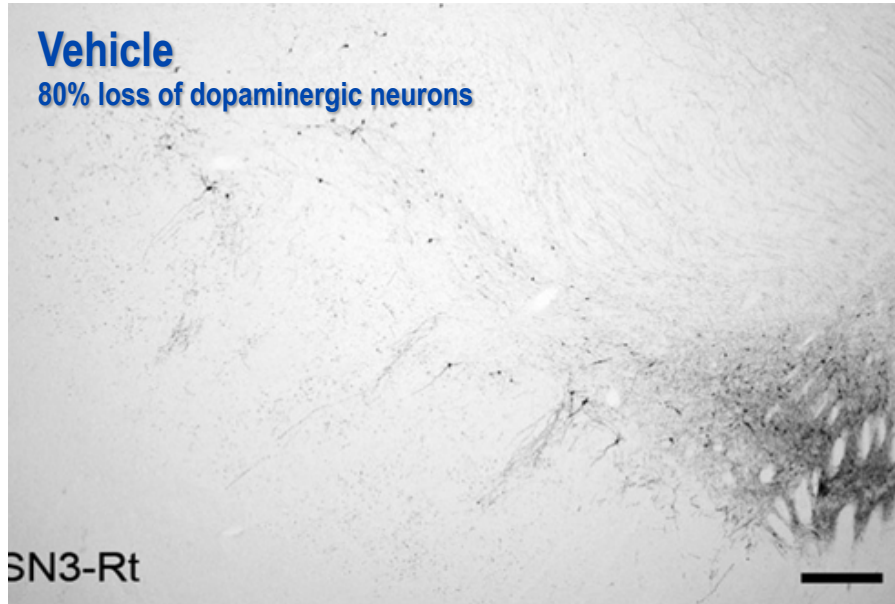
**By developing disease-modifying  
treatments, we fight both human  
suffering and societal costs**



# PD: Our drug candidate CDNF promotes neuronal survival and recovery through multiple relevant mechanisms



# CDNF doubled the number of neurons in a PD model\*



- Disease model: MPTP lesion model in aged Rhesus monkey
- Three monthly CDFN doses **doubled the number of DA neurons**
- Significant improvement in gross motor function, fine motor function, and **for the first time in the world**, non-motor symptoms

\* Research collaboration with University of Pittsburgh funded by Michael J. Fox Foundation



# CDNF may change how patients live with PD

Currently in Phase 1-2 clinical study funded by EU: “**Leading science, greatest potential** to advance clinical practice”



**Karolinska  
Institutet**

  
**KAROLINSKA**  
UNIVERSITETSSJUKHUSET

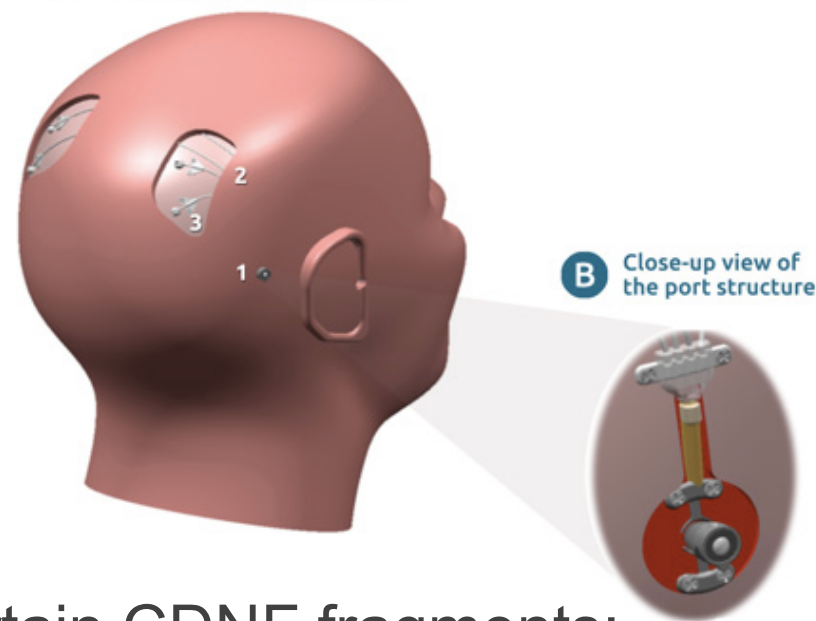


- Study fully recruited: 17 patients randomized in CDNF vs. placebo groups
- Topline results expected in Q1/2020
- First-in-human study in advanced PD patients → Primary endpoint is safety

# Next generation: xCDNF

- Common challenge in brain diseases is drug delivery in the brains → CDFN is dosed directly in brains using medical device
- Next step: we have shown that certain CDFN fragments:
  1. Retain its biological activity (comparable efficacy in PD models)
  2. Penetrate the BBB → **much simpler administration**
  3. Have potential in several indications beyond PD: E.g. Alzheimer's, ALS, stroke

A Location of implanted drug delivery device components



B Close-up view of the port structure

➤ Based on current data xCDNF could be administered as easily as insulin

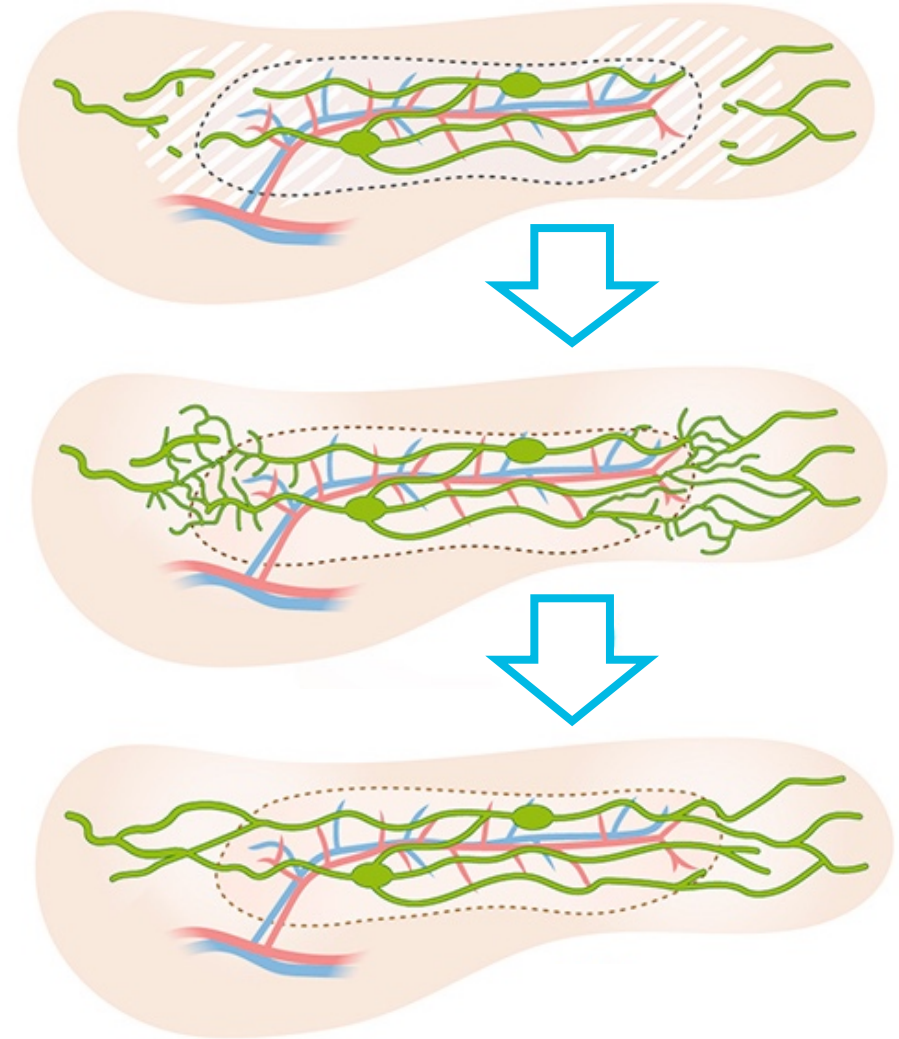


# Lymfactin® gene therapy for curing secondary lymphedema



# Lymfactin®: VEGF-C gene therapy to reconstitute the lymphatic system

1. A single Lymfactin® injection results in local **VEGF-C expression** for about 2 weeks
2. VEGF-C is the natural human protein that promotes the **growth of lymphatic capillaries**
3. Lymphatic capillaries mature into functional lymphatic vessels, reconstituting the lymphatic system



# Lymfactin<sup>®</sup> development

- Actively recruiting patients with breast cancer associated LE (BCAL)
  - Adjunct to lymph node transplantation surgery, which attempts to relieve symptoms
  - Study centers: 5 university hospitals in Sweden and Finland
- Safety established in Phase 1 study with same approach
  - Promising improvements observed in signs and symptoms of LE (uncontrolled data)

- Target: 40 patients randomized in Lymfactin<sup>®</sup> vs. placebo groups
- Topline results expected by end of 2020 (12-month follow-up)
- Primary endpoints: Efficacy in signs and symptoms of LE

# Lymphedema: Market and awareness

- 140 million LE patients worldwide
- €600M market for Lymfactin® as an adjunct therapy in BCAL\*
  - Significant potential in other lymphedemas
- Lymphedema awareness increases
  - Herantis is a partner of LE&RN, international patient advocacy group
  - Hollywood superstar Kathy Bates is an active LE&RN spokesperson

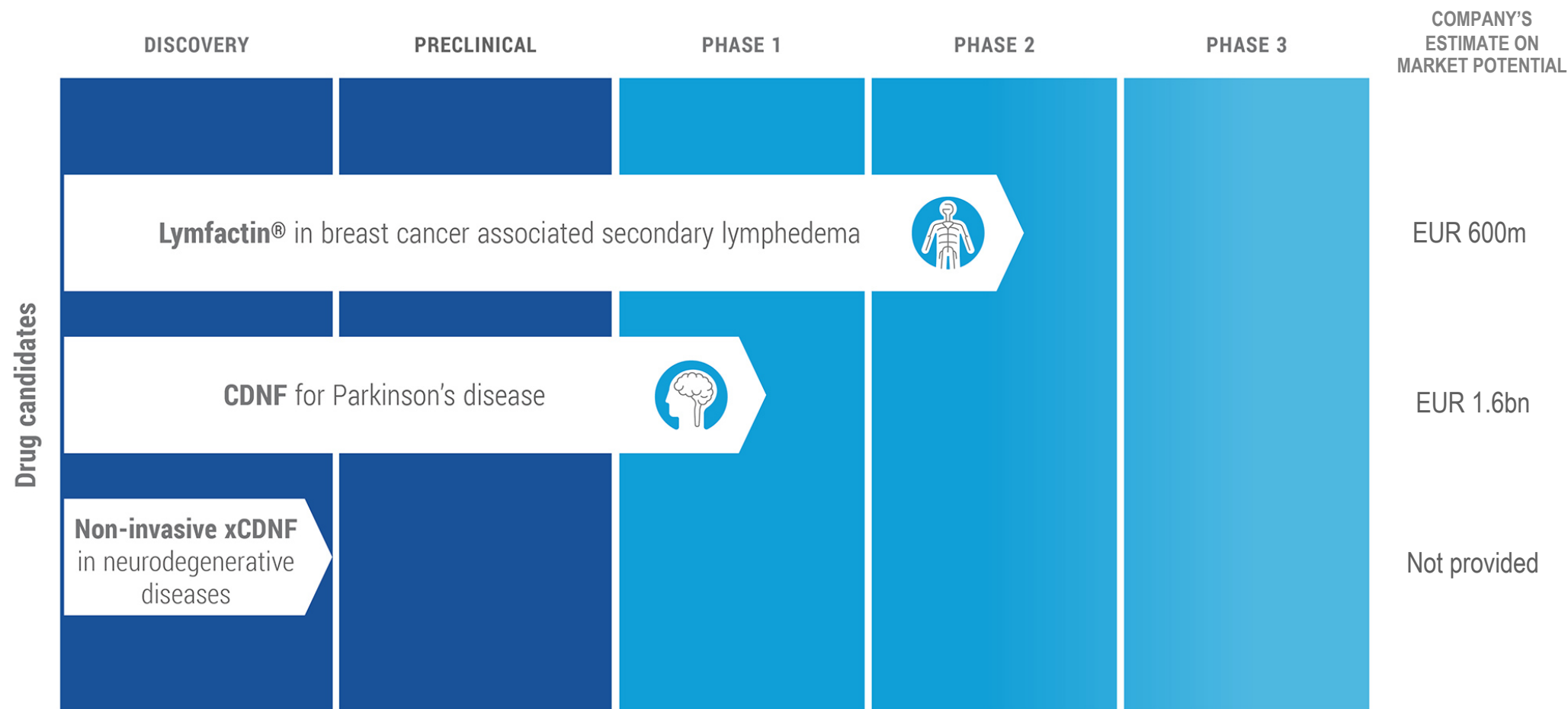




A woman with long hair is shown in profile, blowing a dandelion seed. The background is a soft sunset with warm orange and yellow tones. The entire image has a blue color overlay.

# Summary and Public Offering in Sweden

# Based on leading science, CDNF and Lymfactin® are in placebo-controlled studies targeting unmet clinical needs



# Public company in Finland since 2014: Now dual-listing in Sweden



- Herantis announced on 11 Nov 2019:
  - Public offering in Sweden and Denmark, and private placement: max 618,018 shares to be issued at 71 SEK (~€6.65) per share
  - Application to Nasdaq to have Herantis' shares listed in Nasdaq First North Sweden in December 2019
- Reason for dual-listing:
  - Increase the liquidity of our shares, prepare for the next stage in our drug development
- Use of proceeds:
  - Herantis currently expects to use the net proceeds for preparations of the Phase 2 and Phase 3 clinical studies of CDNF and Lymfactin®, for the preclinical development of a non-invasive CDNF, for strengthening the Company's capital structure, and for other purposes decided by the Board of Directors of Herantis



# Selected financials as reported 1H/2019

	H1/2019	H1/2018
Cash end of period	5.6 MEUR	4.0 MEUR
Cash flow from operations	-2.7 MEUR	-1.8 MEUR
Personnel	9	9

- Market cap approximately 450 MSEK (Nov 18<sup>th</sup>, 2019)
- Last funding round in 3/2019
  - Cornerstone investor: Swedbank Robur's healthcare fund Medica
- Company is **fully funded to reach unblinding** in both randomized trials
  - Full subscription in Swedish IPO would be expected to fund the company through Q1/2021

# Meet us during subscription period in Nov!

- Scheduled events at United Bankers, Cardellgatan 1, Stockholm (5 min from Stureplan)

→ Please register by e-mail: [event@unitedbankers.com](mailto:event@unitedbankers.com)

Date	Time	Notes
Thu, Nov 21st	12:00 – 13:00	Light lunch served
Thu, Nov 21st	15:00 – 16:00	Coffee served
Fri, Nov 22nd	12:00 – 13:00	Light lunch served
Tue, Nov 26th	12:00 – 13:00	Light lunch served
Tue, Nov 26th	15:00 – 16:00	Coffee served

- Subscriptions can be made through Nordnet: <https://next.nordnet.se/se/kampanjer/ipo/herantis-pharma/nordnets-disclaimer-herantis>
- See [herantis.com/information-memorandum/](https://herantis.com/information-memorandum/) for details



**HERANTIS**  
PHARMA

**Thank you**

E-mail: [pekka.simula@herantis.com](mailto:pekka.simula@herantis.com)

Twitter: [@HerantisPharma](https://twitter.com/HerantisPharma)

Blog: <http://herantis.com/blog/>