

# HERANTIS PHARMA

## CDNF in the First-in-Human Clinical Trial

12 months clinical data on the monthly infusions of CDNF directly into a targeted area of the brain of people living with Parkinson's

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And

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TreatER Webcast

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# The Clinical Trial

**The primary endpoint of this First-in-Human study was safety and tolerability**

- secondary endpoints included evaluation of efficacy of CDNF

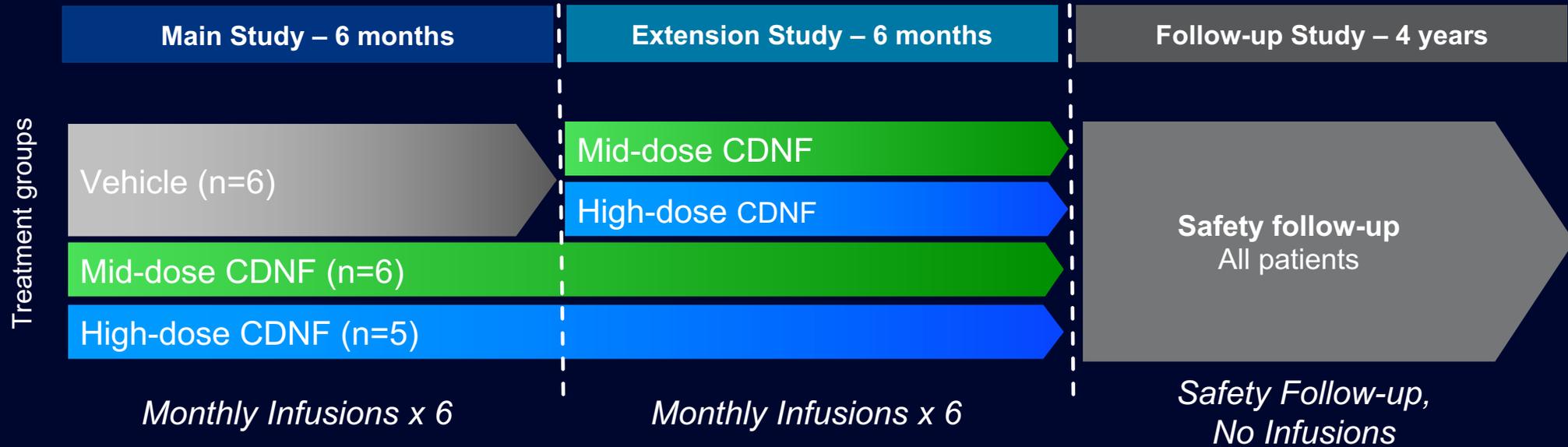
**17 patients with Parkinson's disease**

**The clinical trial was conducted at 3 clinical sites and 2 PET centers in Finland and Sweden**

- Karolinska University Hospital, Stockholm, Sweden
- Skåne University Hospital, Lund, Sweden
- Helsinki University Hospital, Finland
- Karolinska Institute PET centre, Sweden
- Turku PET centre, Finland



# The Clinical Trial Design and Characteristics



Characteristic	Placebo n=6	CDNF (low-mid-mid) n=6	CDNF (low-mid-high) n=5
Age (years)	63.8 ± 6.4	63.2 ± 8.9	57.8 ± 6.7
Disease duration since first motor symptoms (years)	10.5 ± 2.7	10.7 ± 3.1	10.8 ± 2.3

OFF-symptoms more than 4 hours average per day

# Clinical Trial Procedures

## Altogether 26 Visits Over A Period Of 16 Months

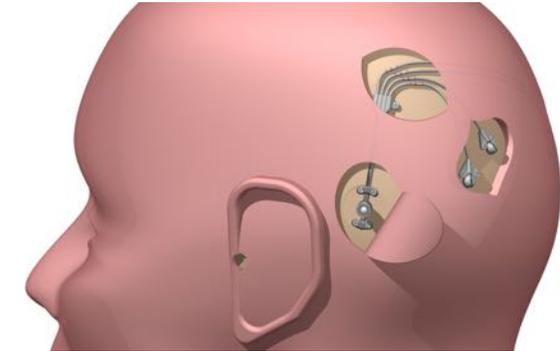
- ❖ 12 treatment infusions, once every month

## Many Scans Taken For Surgical Planning And Safety

## Neurosurgical Implantation Of The Drug Delivery Device

## Several Off-medication Session With Stay Overnight, Travel to PET-Centre, Diary to Maintain, etc.

- ❖ Daily Maintenance Of The Skin Around The Port
- ❖ Very intense period for both the patients and the clinic personnel



# Renishaw's Drug Delivery System

The neuroinfuse™ drug delivery system

For more information visit [www.renishaw.com/drugdelivery](http://www.renishaw.com/drugdelivery)

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**CDNF in the First-in-Human clinical trial**  
***12 Months Primary Endpoint - Safety***

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# Safety Assessment During the Clinical Trial

## Safety Was Assessed At Any Time During The Study:

- By asking the patient if they have experienced any new adverse events since the previous visit, also events unrelated to the study treatment

## Laboratory Blood And Urine Testing At Every Visit

- Also testing for anti-CDNF antibodies

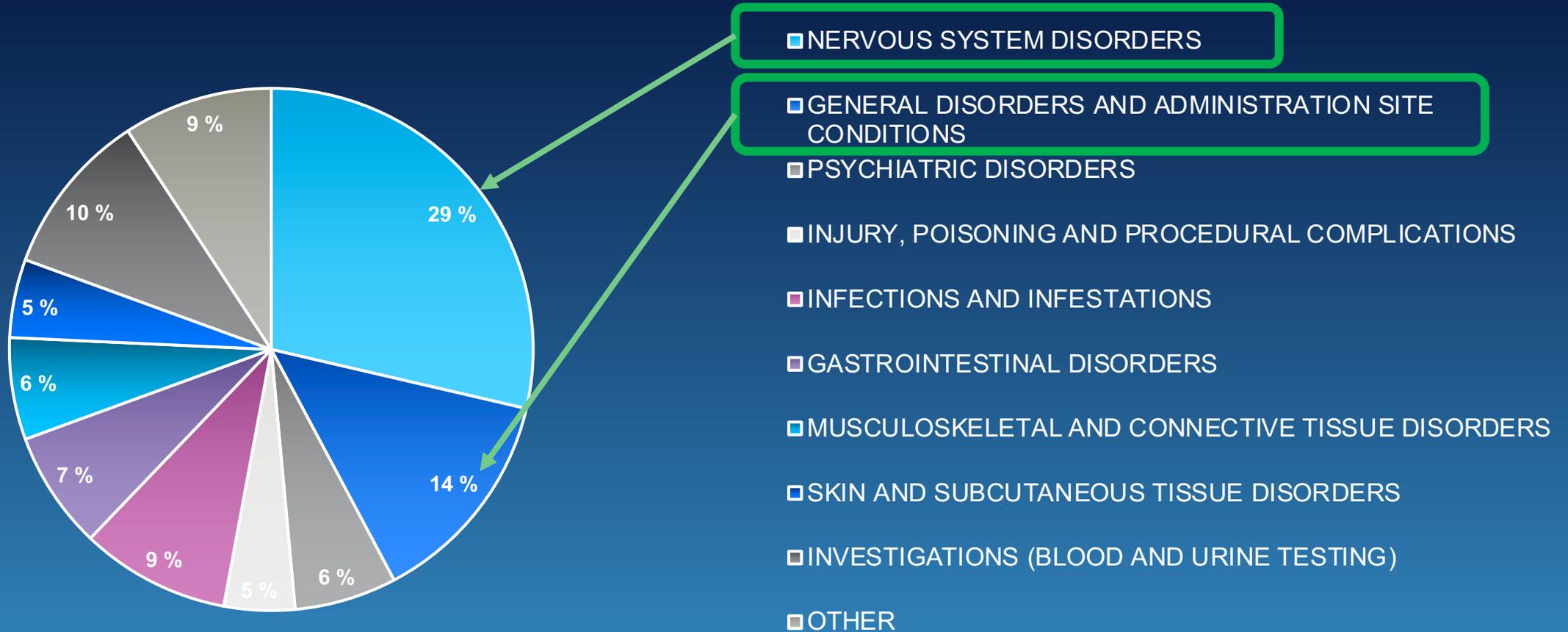
## Physical Examination At Screening, Before Treatment Start And Every Six Months

- Included neurological examination
- ECG

## Brain MRI Every Three Months

- Every 3 months completion of questionnaires related to cognition, depression and impulsive-compulsive behavior
- Extra visits for follow-up of adverse events

# Observed Adverse Events\* Profile

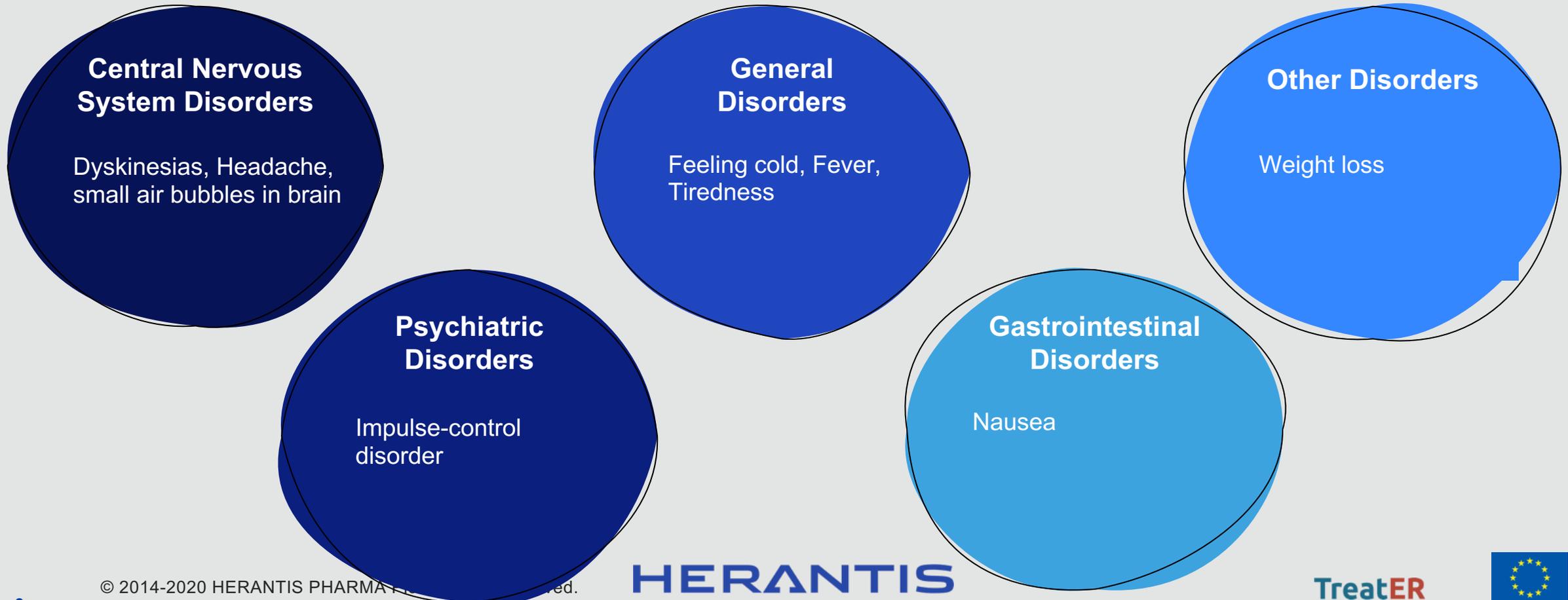


\* Includes all adverse events after first treatment dosing; both related and unrelated to treatment

# The Most Common Reported Drug-Related Adverse Events

Altogether 68 Drug-related Adverse Events Were Reported During the 12-Month Treatment Period

Were Mild to Moderate, and Majority Has Recovered:



# Serious Adverse (Device) Events

Altogether 9 serious adverse (device) events were reported in the Main and Extension study:

- 1 serious event occurred prior to surgery or treatment start – purulent sinusitis
- 5 serious adverse events occurring after surgery, prior to treatment start:
  - Confusion (2x)
  - Infection of the skin around the port
  - Skin tissue decay (necrosis) around the port
  - Wrist fracture after a fall
- 3 serious adverse events occurring during treatment:
  - Brain abscess (2x)
  - General infection, not specified

# All Recovered from Serious Adverse (Device) Events



Infectious events:

- Brain abscess occurred in Main study during the first 6-month period
- Port skin necrosis in Main study during the first 6-month period



**Risk mitigation improvements** made to surgical procedure, infusion procedure, device maintenance procedure, and additional training of investigators



After risk mitigation improvements, **87 infusions conducted without** infusion procedure-related infections or other procedure-related **AEs**

# Summary of 12-Month Safety Data

**12 Monthly Intracerebral Doses of CDNF was Safe and Well-Tolerated**

Majority of the Reported Drug-related **Adverse Events Were Mild And all Patients have Recovered**

Similar Safety Profile in Main and Extension Study, Less Reported Adverse Events in Extension

- **No clear difference in safety profile** between treatment groups
- **No dose-limiting toxic effects** of the drug were observed

**i. CDNF Confirmed Safe & Well Tolerated ⇒ Drug Safety Established**

**ii. Drug-Device Combination ⇒ Safety Improvements Made During The Study**



Thank you!