

# Can extended treatment with N-pep-12 improve recovery after acute ischemic stroke?

<b>Submission date</b> 15/04/2020	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
<b>Registration date</b> 29/04/2020	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 20/10/2023	<b>Condition category</b> Circulatory System	<input type="checkbox"/> Individual participant data <input checked="" type="checkbox"/> Record updated in last year

## Plain English Summary

### Background and study aims

Cognitive impairment is a common finding in patients with stroke, regardless of severity, with an important impact on the quality of life. Vascular cognitive impairment (VCI) describes a spectrum of cognitive disorders ranging from mild cognitive impairment (MCI) to dementia, with consequences for all cognitive domains and behaviour. This is a study to investigate the effects of N-Pep-12 treatment on the recovery of patients with post-stroke cognitive impairment. N-Pep-12 is a nutritional supplement that has been shown to have neuroprotective and pro-cognitive effects in experimental studies as well as in earlier clinical studies in patients suffering from age-related cognitive deficits.

### Who can participate?

Adults aged 18 to 80 with supratentorial ischemic stroke onset 30-120 days before screening

### What does the study involve?

Participants are randomly allocated to one of two groups. The first group take N-Pep-12 (90 mg) capsules, once per day, oral, for 360 days, while the second group do not receive any medication. Cognitive function is assessed after 0, 90 and 360 days.

### What are the possible benefits and risks of participating?

The potential benefit of N-Pep-12 is improved cognitive function and brain recovery in patients with post-stroke cognitive impairment. The main risk for patients is developing adverse events, which are carefully assessed in order to establish a detailed safety profile of the intervention.

### Where is the study run from?

RoNeuro Institute for Neurological Research and Diagnostic (Romania)

### When has the study started and how long is it expected to run for?

April 2020 to October 2023

### Who is funding the study?

The Society for the Study of Neuroprotection and Neuroplasticity (SSNN) (Romania)

Who is the main contact?

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## Additional identifiers

### EudraCT/CTIS number

Nil known

### IRAS number

### ClinicalTrials.gov number

Nil known

### Secondary identifying numbers

FSNN20200313

# Study information

## Scientific Title

Combined neuropsychological, neurophysiological and psychophysiological assessment of the effects of N-Pep-12 on neurorecovery in patients after ischemic stroke - N-Pep-12 Extension

## Acronym

N-Pep-12 Extension

## Study hypothesis

The study evaluates the therapeutic effect and the safety of a single daily dose of 90 mg of N-Pep-12 for 360 days in supporting neurorecovery in comparison to a control group of patients after ischemic stroke.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Approved 27/03/2020, Ethics Committee of the Iuliu Hatieganu University of Medicine and Pharmacy (8 Babeş Street, 400012 Cluj-Napoca, Romania; +40 (0)264 597 256; contact@umfcluj.ro), ref: 115/16.03.2020

## Study design

Exploratory prospective randomized open-label controlled study

## Primary study design

Interventional

## Secondary study design

Randomised controlled trial

## Study setting(s)

Other

## Study type(s)

Treatment

## Participant information sheet

No participant information sheet available

## Condition

Supratentorial, radiologically confirmed ischemic stroke with the onset 30-120 days prior to screening

## Interventions

Current interventions as of 02/06/2020:

The study is organised into three visits:

Visit 1 – Screening / Baseline - Study Day 0

Visit 2 – Efficacy / Safety - Study Day 90

Visit 3 – Efficacy / Safety - Study Day 360

No follow-up will be performed after the 360-day evaluation.

The study arms will be administered the following treatment courses:

1. Treatment Group: N-Pep-12 (90 mg) capsules 1/ day oral for 360 days
2. Reference Group: will not receive any kind of medication or placebo

#### Randomisation, Blinding and Unblinding

This is an open-label study. Communication is forbidden between assessments and the person who gives the treatment.

Patients who meet the inclusion and exclusion criteria will be randomly assigned to the treatment group or control group, in a 2:1 ratio.

#### Previous interventions:

The study is organised into three visits:

Visit 1 – Screening / Baseline - Study Day 0

Visit 2 – Efficacy / Safety - Study Day 90

Visit 3 – Efficacy / Safety - Study Day 360

No follow-up will be performed after the 360-day evaluation.

The study arms will be administered the following treatment courses:

1. Treatment Group: N-Pep-12 (90 mg) capsules 1/ day oral for 360 days
2. Reference Group: will not receive any kind of medication or placebo

#### Randomisation, Blinding and Unblinding

This is a single-blinded study. Communication is forbidden between assessments and the person who gives the treatment.

Patients meeting the inclusion and exclusion criteria will be randomly assigned to receive active treatment based on the time of their enrollment in the study. Randomisation was performed 2:1 (2 -intervention, 1 -control). The first two patients enrolled will receive active treatment, the third patient will be in the control group. This allocation scheme shall be continued until 90 patients have been enrolled.

#### Intervention Type

Drug

#### Phase

Phase IV

#### Drug/device/biological/vaccine name(s)

N-Pep-12

#### Primary outcome measure

1. Cognitive function assessed using Montreal Cognitive Assessment (MoCA) at days 0, 90, 360
2. Emotional status assessed using Hospital Anxiety and Depression Scale at days 0, 90, 360
3. Cognitive function assessed using Digit Span (Wechsler adult intelligence scale – third edition) at days 0, 90, 360
4. Cognitive function assessed using Color Trails Test at days 0, 90, 360
5. Cognitive function assessed using PSI (Processing Speed Index, Wechsler adult intelligence scale – third edition) at days 0, 90, 360

## Secondary outcome measures

### 1. Safety variables:

- 1.1. Adverse events/serious adverse events measured using a questionnaire at 90 and 360 days
- 1.2. Mortality reported at any time during the study

### 2. Subgroup analysis:

- 2.1. Eye movements assessed using a Tobii Pro TX300 eye tracking device and analyzed using Tobii Studio software at days 0, 90, 360
- 2.2. Brain electrical activity assessed using electroencephalography (EEG) and analyzed quantitatively using BrainAnalyzer software at days 0, 90, 360

## Overall study start date

13/03/2020

## Overall study end date

31/10/2023

# Eligibility

## Participant inclusion criteria

1. Stroke onset 30-120 days prior to screening
2. Stroke is ischemic in origin, supratentorial, and radiologically confirmed (CT or MRI)
3. No significant pre-stroke disability (pre-stroke Modified Rankin Score of 0 or 1)
4. Goodglass and Kaplan Communication Scale Score of > 2 at screening
5. No other radiologically confirmed stroke in the 3 months preceding index stroke
6. Age between 18 and 80 years, inclusive
7. Signed informed consent form

## Participant type(s)

Patient

## Age group

Adult

## Lower age limit

18 Years

## Sex

Both

## Target number of participants

90

## Total final enrolment

107

## Participant exclusion criteria

1. Pre-existing and active major neurological disease
2. Pre-existing and active (e.g., on chronic medication) major psychiatric disease, such as major depression, schizophrenia, bipolar disease, or dementia (the short Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE) score >3)

3. Advanced liver, kidney, cardiac, or pulmonary disease
4. A terminal medical diagnosis consistent with survival < 1 year
5. Major drug dependency, including alcohol (in the investigator's judgment)
6. Injury of writing hand influencing cognitive or other outcome measures, in the investigator's judgment
7. Females who are pregnant or lactating

**Recruitment start date**

30/04/2020

**Recruitment end date**

31/10/2022

## Locations

**Countries of recruitment**

Romania

**Study participating centre**

**RoNeuro Institute for Neurological Research and Diagnostic**

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## Sponsor information

**Organisation**

The Foundation for the Study of Neuroscience and Neuroregeneration (Fundatia pentru Studiul Nanoneurostiintelor si Neuroregenerarii)

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**Sponsor type**

Research organisation

## Funder(s)

## Funder type

Research organisation

## Funder Name

The Foundation for the Study of Neuroscience and Neuroregeneration (Fundatia pentru Studiul Nanoneurostiintelor si Neuroregenerarii)

# Results and Publications

## Publication and dissemination plan

Planned publication in a high-impact peer-reviewed journal. Additional documents will be made available at a later date.

## Intention to publish date

31/12/2024

## Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request

## IPD sharing plan summary

Available on request

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Protocol file</a>	version 3.0	13/03/2020	20/10/2023	No	No