Low Dose Naltrexone & Mestinon RCT in ME/CFS (&LC)

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UNDERSTAND, DIAGNOSE, TREAT
3rd International Meeting of the Charité Fatigue Center

12 - 13 May 2025

Harnack House of the Max Planck Society
Berlin, Germany

CHARITÉ UNIVERSITÄTSMEDIZIN BERLIN

supported by

ME CFS Research Foundation

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HARVARD MEDICAL SCHOOL

Low Dose Naltrexone & Mestinon RCT in ME/CFS (&LC)

- Pyridostigmine
- Low Dose Naltrexone
- Baby LIFT
- LIFT

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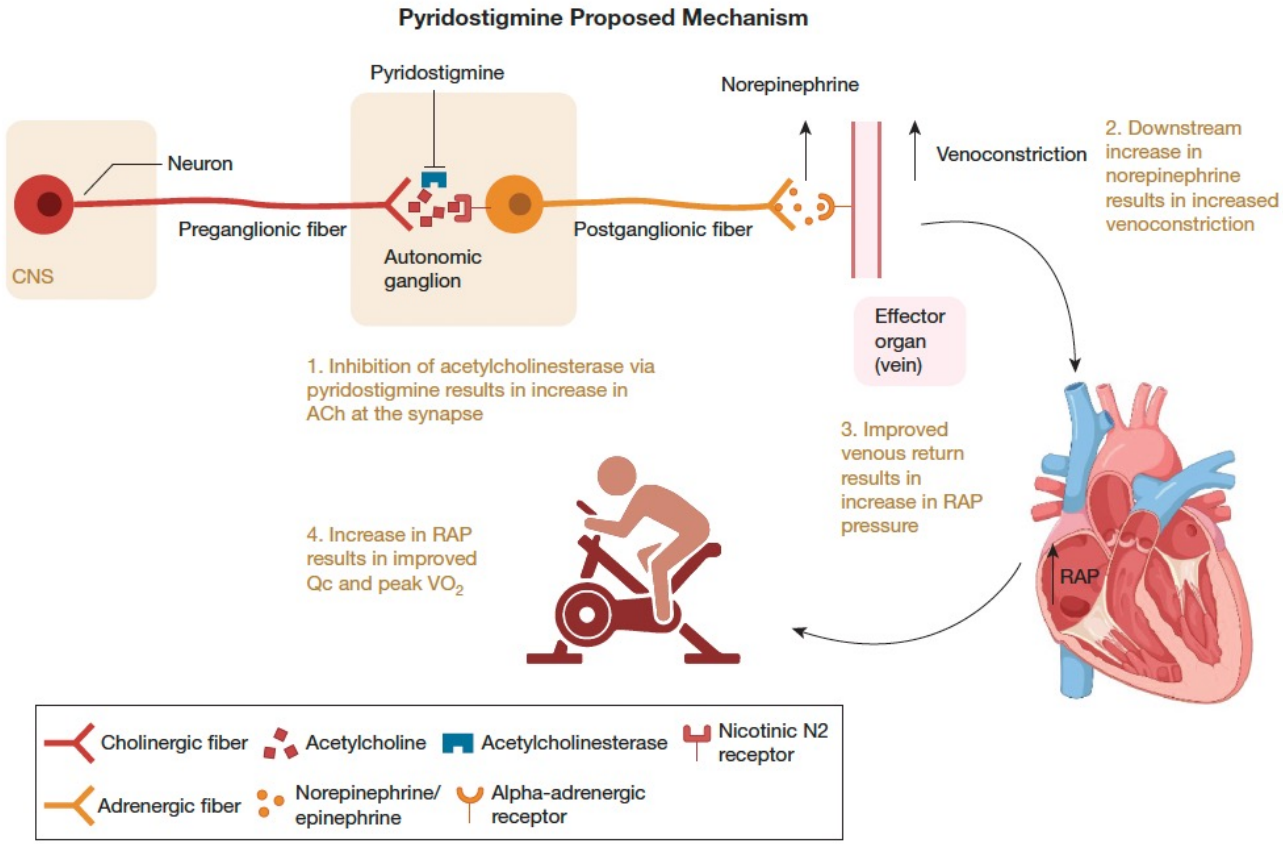
Pyridostigmine



Low Dose Naltrexone & Mestinon RCT in ME/CFS (&LC)

- Pyridostigmine
- Low Dose Naltrexone

Low Dose-Naltrexone (LDN)

- μ opioid receptor antagonist used for alcohol and/or opioid use disorder.
- low dose (0.5mg-4.5mg), 1/10th of the typical dose used for opioid use disorder
- In ME/CFS, restores NKC function
- Antagonizes toll-like receptor 4 (TLR-4) > downregulates NF-kB and production of proinflammatory cytokines, including TNF-alpha and IL-6
- 115 fibromyalgia patients (2022)
  - 65% improvement in pain
- In ME/CFS, a retrospective chart review in Finland followed 201 patients between (2010-2014)
  - positive self-reported response 73.9%,
  - esp. alertness (51.4%).

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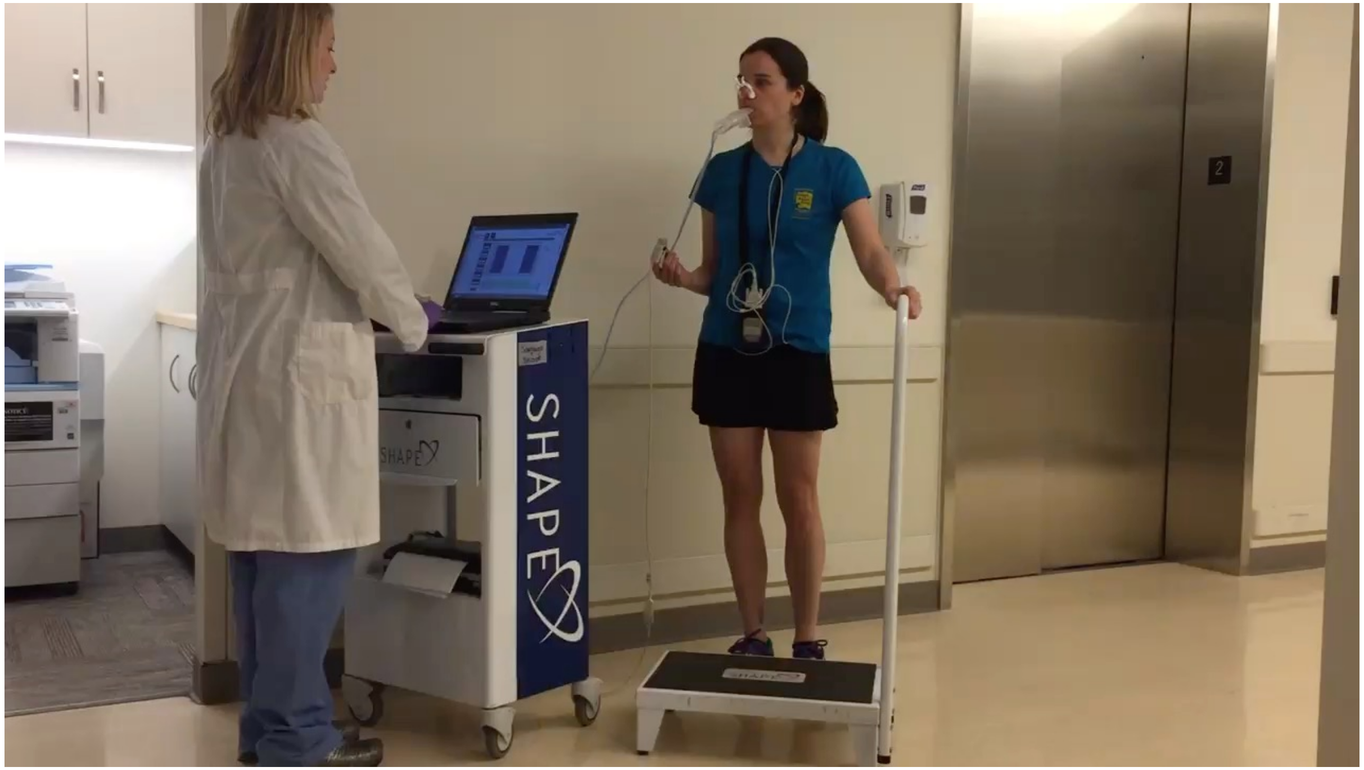
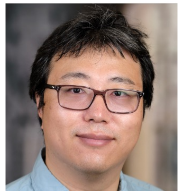
Shape Test
(non-invasive, cardiopulmonary exercise test)

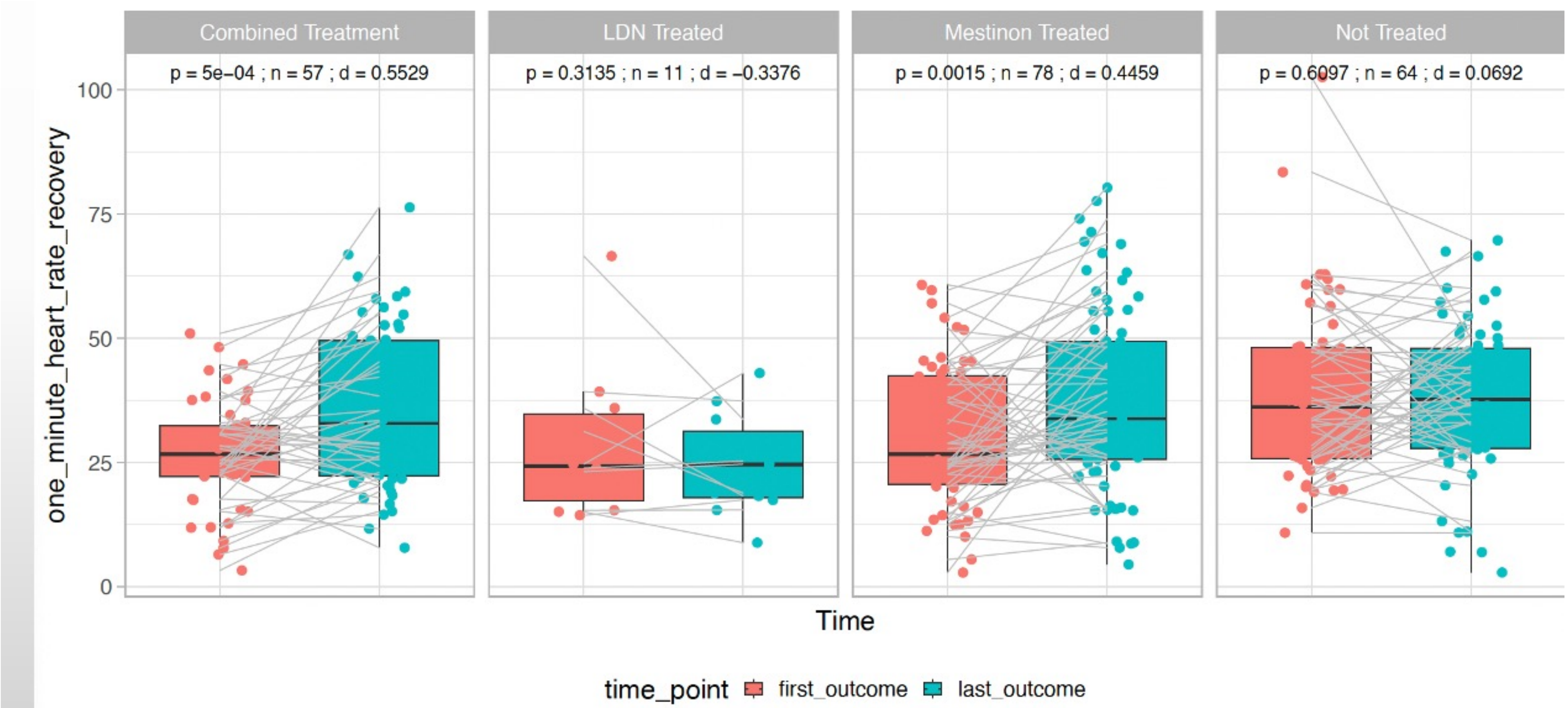




Peng Li, PhD

Johanna Squires, MS

Shape CPET: Heart Rate Recovery Pyridostigmine v. Mestinon v. Both



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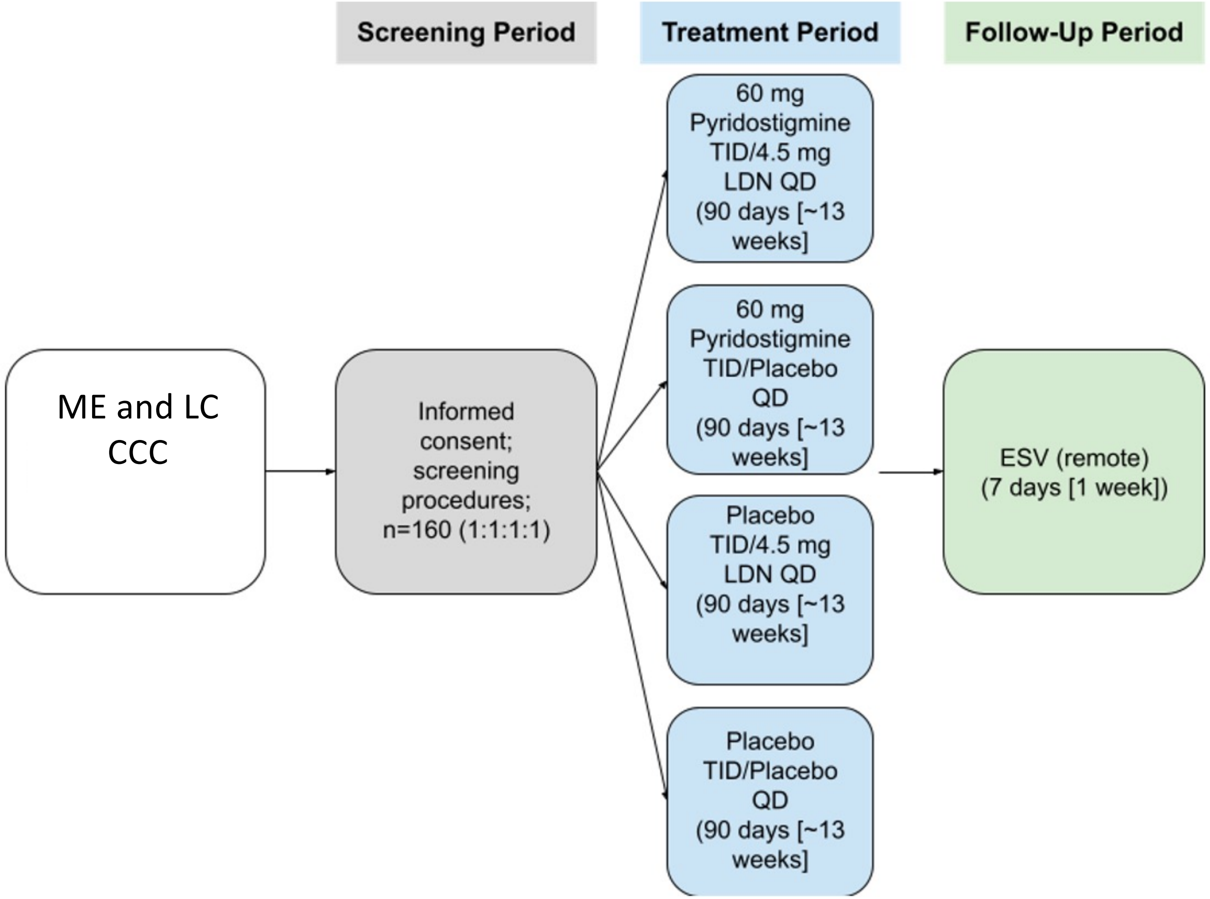
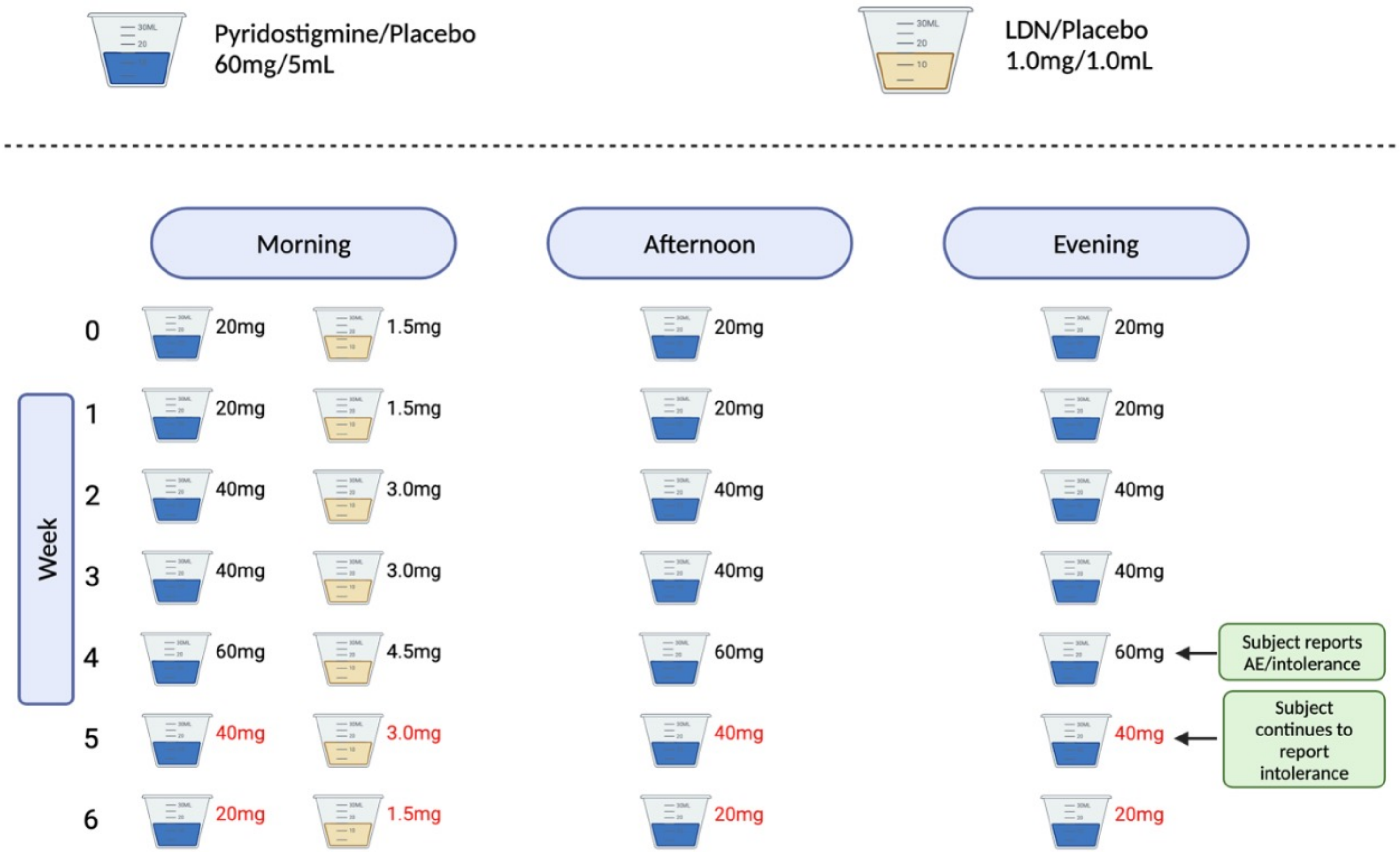
Harvard LIFT (Life Improvement Trial)

Johanna Squires, MS



Preprint https://doi.org/10.21203/rs.3.rs-5626167/v1

DOSING


Pyridostigmine/Placebo
60mg/5mL
LDN/Placebo
1.0mg/1.0mL
Morning
Afternoon
Evening
Week
0
20mg
1.5mg
20mg
20mg
1
20mg
1.5mg
20mg
20mg
2
40mg
3.0mg
40mg
40mg
3
40mg
3.0mg
40mg
40mg
4
60mg
4.5mg
60mg
60mg
Subject reports AE/intolerance
5
40mg
3.0mg
40mg
40mg
Subject continues to report intolerance
6
20mg
1.5mg
20mg
20mg

DOSING

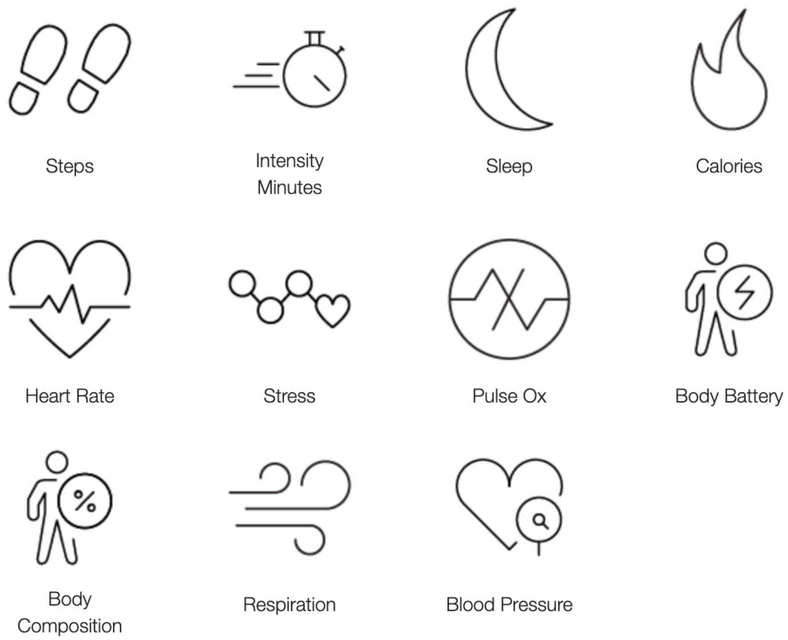
Pyridostigmine/Placebo
60mg/5mL
LDN/Placebo
1.0mg/1.0mL
Morning
Afternoon
Evening
Week
0 20mg 1.5mg 20mg 20mg
1 20mg 1.5mg 20mg 20mg
2 40mg 3.0mg 40mg 40mg
3 40mg 3.0mg 40mg 40mg
4 60mg 4.5mg 60mg 60mg
5 40mg 3.0mg 40mg 40mg
6 20mg 1.5mg 20mg 20mg
Subject reports AE/intolerance
Subject continues to report intolerance

Throughout Study

Days 0-90

Treatment (Daily)

GARMIN



BASELINE & COMPLETION

Proteomics

somalogic

Day 0
&
Day 90

SHAPE

Metabolomics

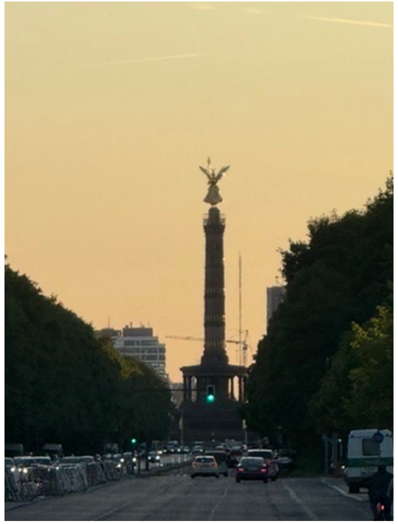
Université de Montréal

Prof. Kristian Sommerfelt

FUNCAP-55
PROMIS-29
DePaul-PEM
Brain Vital

PBMC

Cornell University

THANK YOU