

NECTAR 2023

***33rd Annual Meeting of the
Network for European
CNS Transplantation and Restoration***

Naples, Italy • 23-25 October 2023

The Organising Committee

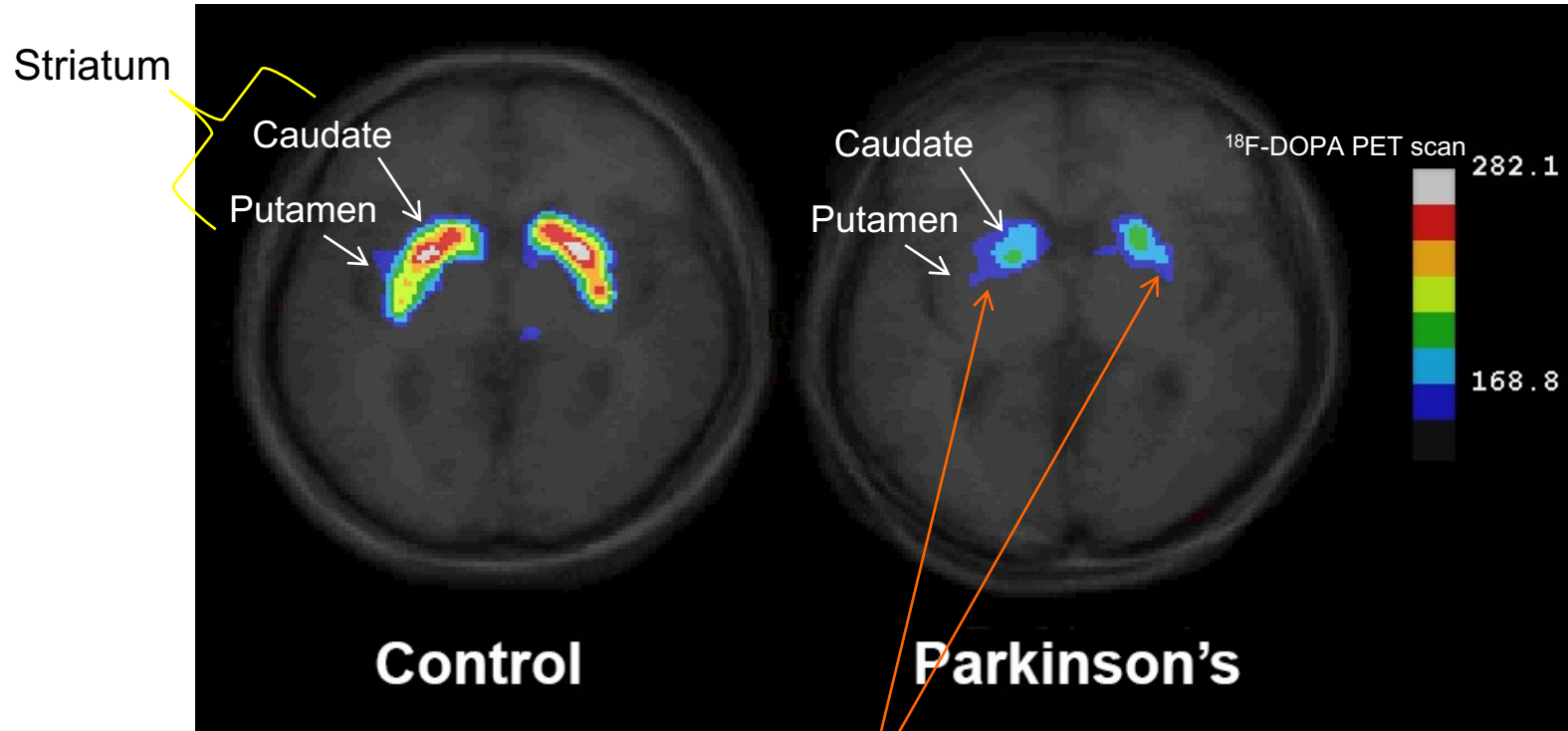


Supporters



Cell replacement therapy (CRT) for Parkinson's

^{18}F -DOPA PET scan

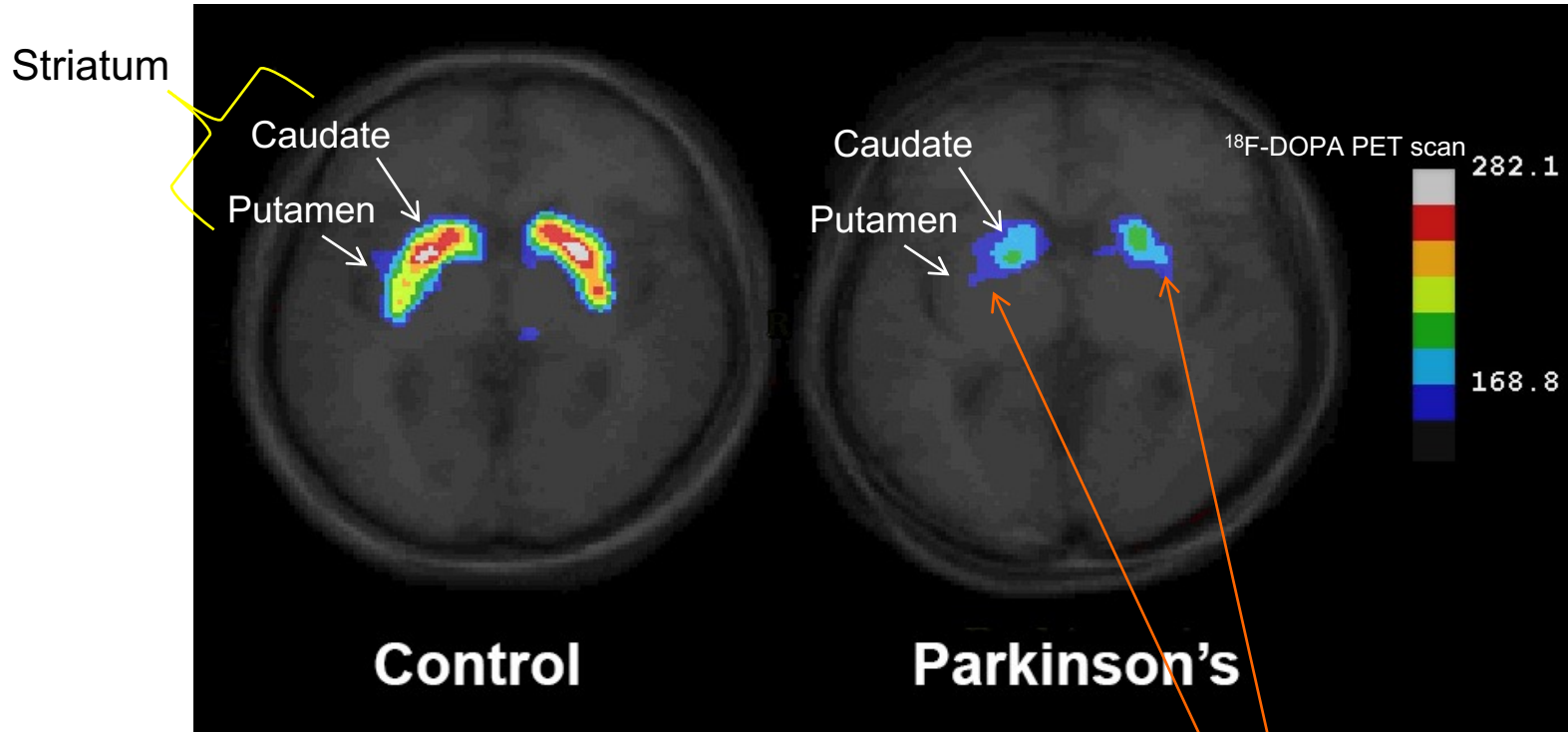


- Motor symptoms caused by loss of **dopaminergic neurons**
- The loss is very localised to the **caudate** and **putamen**

Therapy: Transplant *new* dopaminergic neurons into putamen

Cell replacement therapy (CRT) for Parkinson's

^{18}F -DOPA PET scan

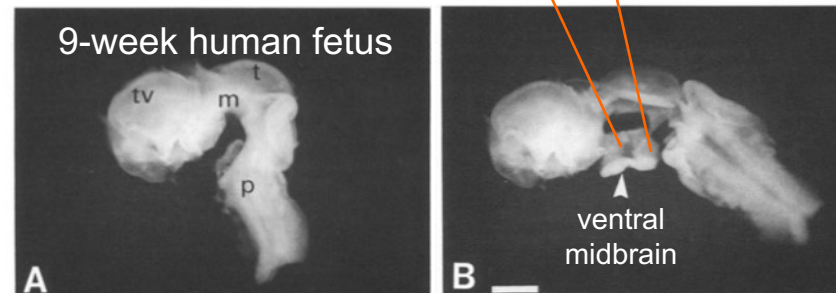


- Motor symptoms caused by loss of **dopaminergic neurons**
- The loss is very localised to the **caudate and putamen**

Late 1970s

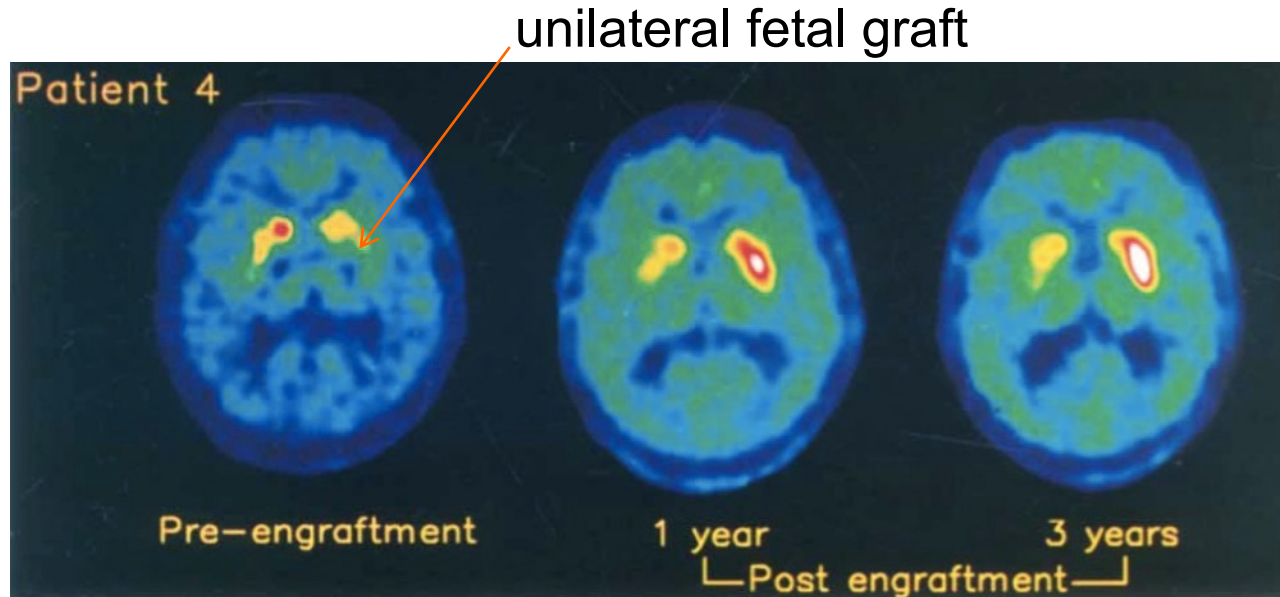


Olle Lindvall
Anders Björklund

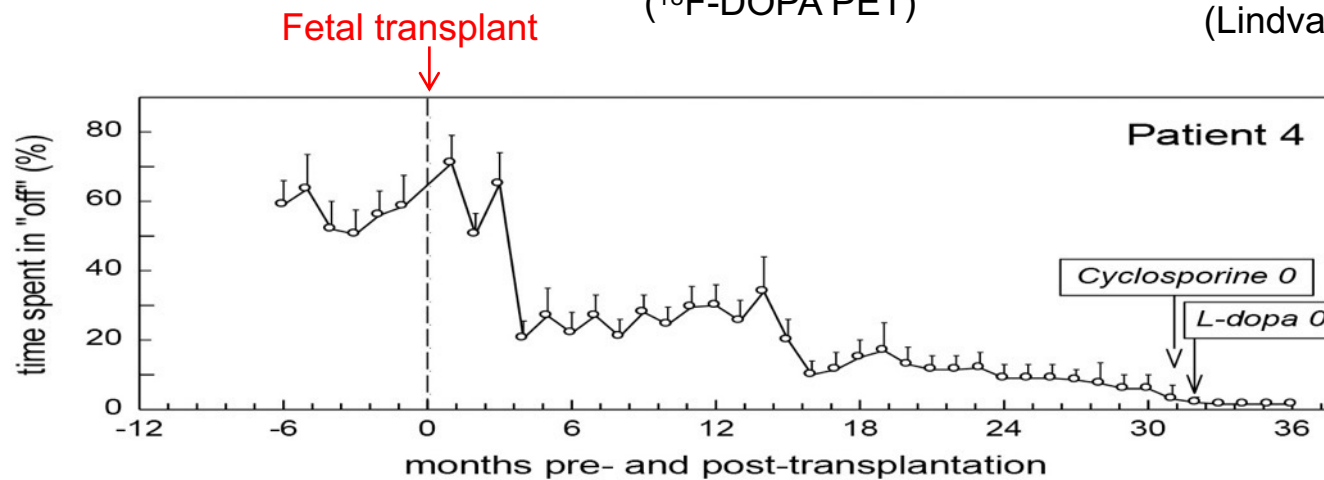


(Brundin *et al*, 1986, *Exp Brain Res*)

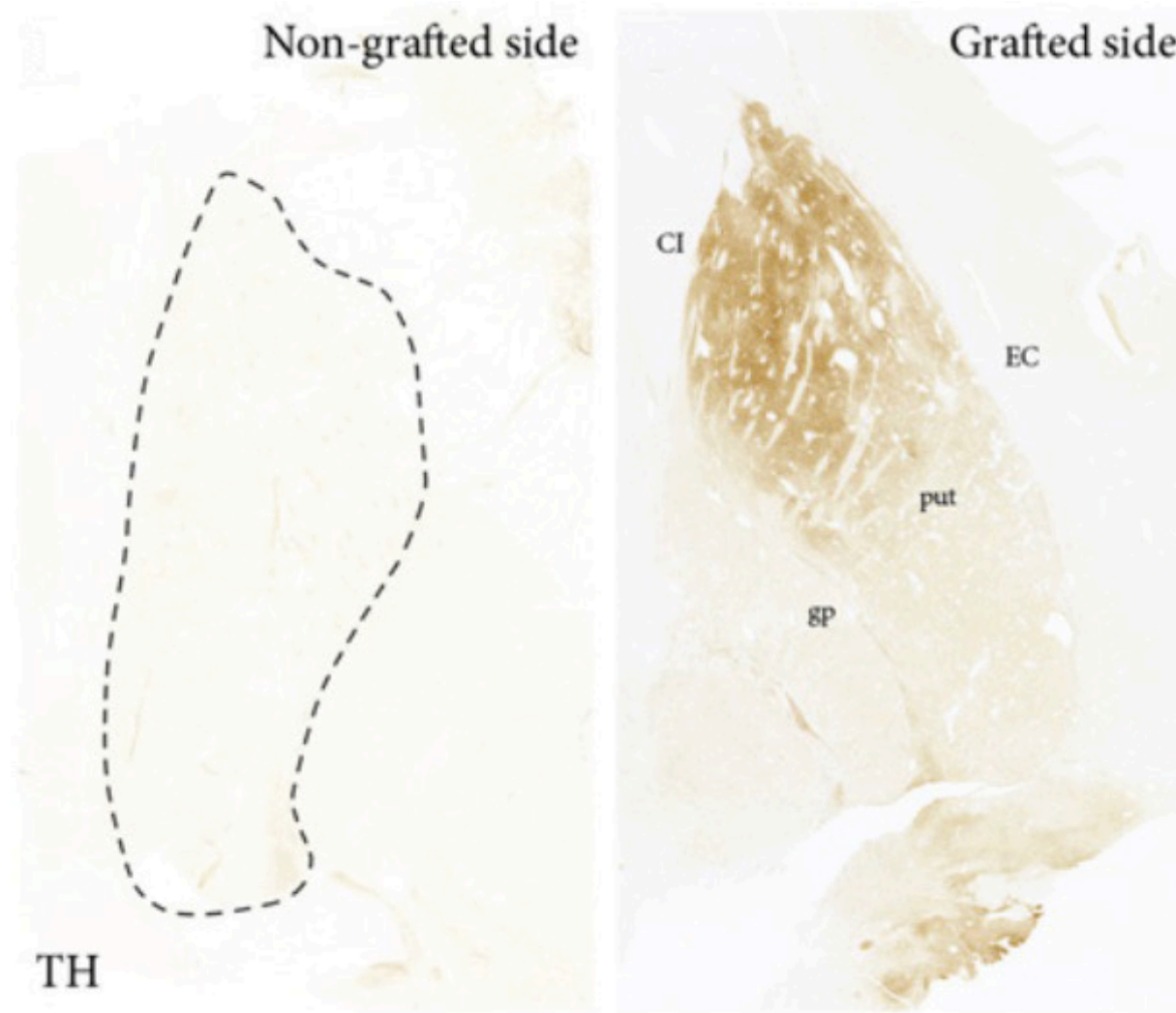
Human clinical trials with fetal ventral midbrain tissue



(Lindvall *et al*, 1994)



24 years after fetal transplant



(Li *et al*, 2016, *PNAS*)

put = putamen
TH = tyrosine hydroxylase

Fetal tissue replaced by stem cell-derived cells

(hESCs or iPSCs)

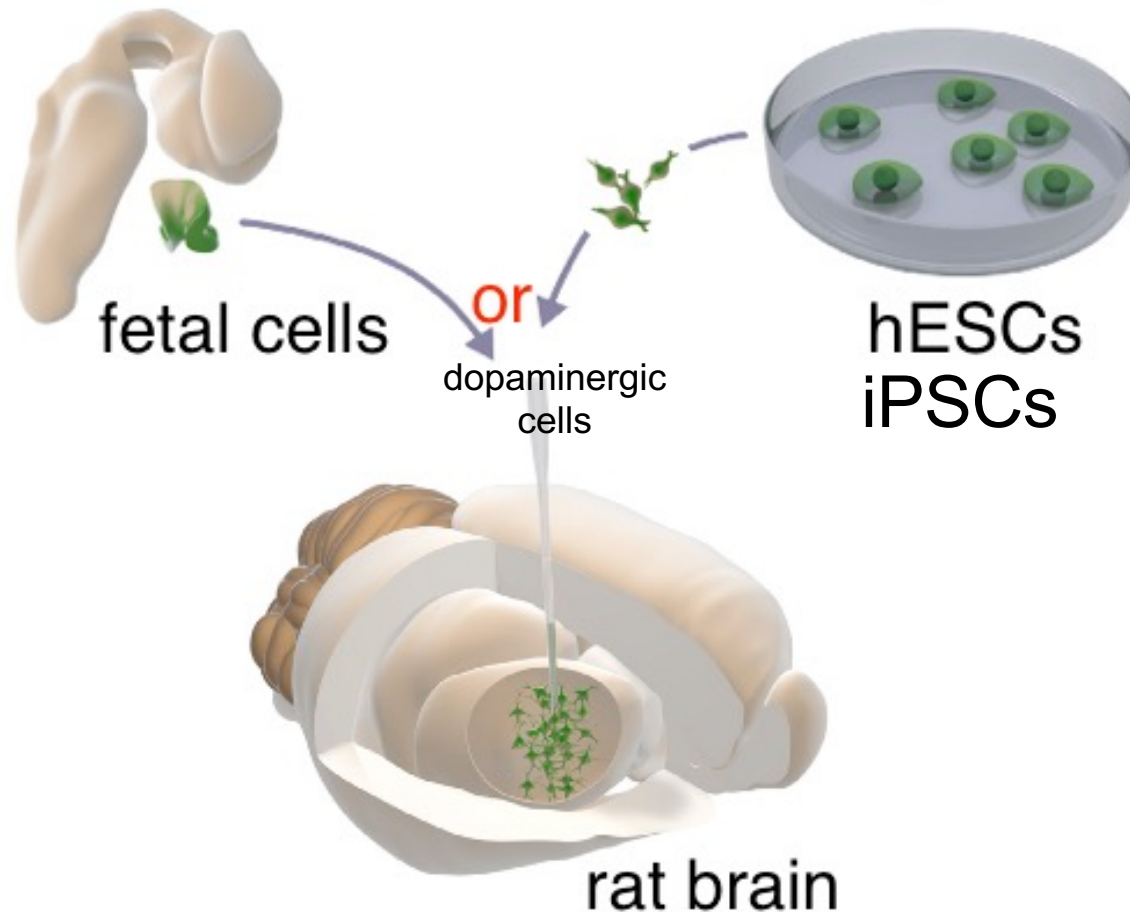


Malin
Parmar



Agnete
Kirkeby

(Grealish et al., 2014)



Lorenz Studer



Marcus Yountz *(BlueRock Therapeutics)*

Dopaminergic neuronal precursor cell therapy for Parkinson's disease: background and 1 year results from a Phase 1 study of bemdaneprocel



Marcus Yountz, MD, FAAN · 1st

Vice President, Clinical Development, Neurology at BlueRock Therapeutics



**BlueRock
Therapeutics**

8 Jun 2021



Tags:

Neurology

Clinical Trials

BlueRock Therapeutics Announces First Patient Dosed with DA01 in Phase 1 Study in Patients with Advanced Parkinson's Disease

CAMBRIDGE, Mass., June 8, 2021 — BlueRock Therapeutics, a clinical stage biopharmaceutical company and wholly-owned subsidiary of Bayer AG, announced today the dose administration for the first patient in a Phase 1 (Ph1), open-label study of pluripotent stem cell-derived dopaminergic neurons in patients with advanced Parkinson's disease (PD). The purpose of the Ph1 clinical trial is to evaluate the safety, tolerability, and preliminary efficacy of DA01 in patients with PD.



**BlueRock
Therapeutics**

28 Aug 2023



Tags:

Announcement

Neurology

BlueRock's Phase I study with bemdaneprocel in patients with Parkinson's disease meets primary endpoint

- Investigational cellular therapy, bemdaneprocel (BRT-DA01), was well tolerated with no major safety issues in all 12 participants in low dose and high dose cohorts through one year
- At one-year, exploratory clinical endpoints improved overall, with participants in the high dose cohort showing greater improvement.
- One year assessment of all participants demonstrated feasibility of transplantation, cell survival, and engraftment
- Planning is underway for a Phase II study that is expected to begin enrolling participants in H1 (first half) 2024



Gesine Paul-Visse (*Lund University, Sweden*)

Transplantation of human embryonic-stem cell derived dopaminergic progenitors in Parkinson's disease: first-in-human clinical trial design of STEM-PD



Malin Parmar (*Lund Stem Cell Center, Sweden*)

Developing a stem cell based therapy for Parkinson's disease; the interplay of experimental studies and translational efforts

UK-Sweden trial – February 2023



LUND UNIVERSITY



UNIVERSITY OF
CAMBRIDGE



Malin
Parmar



Agnete
Kirkeby



Roger
Barker

Google “STEM-PD trial”

First patient receives milestone stem cell-based transplant for Parkinson’s Disease

Published 28 February 2023



On 13th of February, a transplant of stem cell-derived nerve cells was administered to a person with Parkinson’s at Skåne University Hospital, Sweden. The product has been developed by Lund University and it is now being tested in patients for the first time.

Contact:

Questions regarding the clinical trial:

Gesine Paul-Visse, Senior Consultant



Kristian Kolind *(Novo Nordisk)*

The cell journey - bringing a cell product safely and effectively into patients

Short talk selected from abstract

Merja Voutilainen *(University of Helsinki, Finland)*

CDNF fragment passes the blood brain barrier protecting and restoring dopamine neurons
animal models of Parkinson's disease



Short talk selected from abstract

Merja Voutilainen (University of Helsinki, Finland)

CDNF fragment passes the blood brain barrier protecting and restoring dopamine neurons
animal models of Parkinson's disease

Vol 448 | 5 July 2007 | doi:10.1038/nature05957

nature

LETTERS

Novel neurotrophic factor CDNF protects and rescues midbrain dopamine neurons *in vivo*

Päivi Lindholm¹, Merja H. Voutilainen², Juha Laurén¹†, Johan Peränen¹, Veli-Matti Leppänen¹,
Jaan-Olle Andressoo¹, Maria Lindahl¹, Sanna Janhunen²†, Nisse Kalkkinen¹, Tõnis Timmusk^{1,3}, Raimo K. Tuominen²
& Mart Saarma¹

Zhijun Wang



Andrew Chai

Michela Barbato

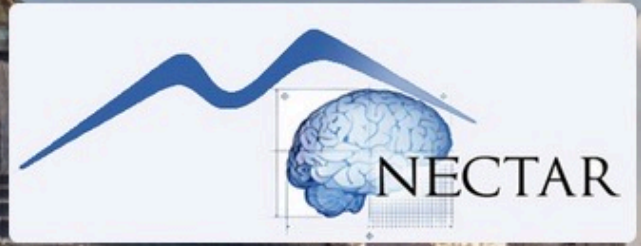
Anders Björklund



NECTAR President

Romina Aron Badin





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Alison Williams & Chiara Zurzolo



Alessandro Fiorenzano

Universita degli Studi di Napoli Federico II, estd. 1224 AD

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