Translational Cell therapy

Malin Parmar

1. **Short description of the infrastructure.**
   The goal of the translational platform is to establish competence and resources for conducting first-in-human trials of advanced therapies, including ATMPs, with PD as a forerunner. It spans from pre-clinical development to clinical translation, assembly of patient cohorts and outcome measures.

2. **Is this infrastructure receiving support also from other Strategic Research Areas (SRAs) or organizations at Lund University (e.g. Medical faculty, LBIC). If yes, please specify the type of support and its amount.**
   No

3. **Number and names of MultiPark senior researchers using the infrastructure in the period 2018-2020[1].**
   Anders Björklund
   Agnete Kirkeby
   Oskar Hansson
   Maria Nilsson
   Malin parmar
   Gesine Paul Visse
   Håkan Widner

4. **Number and names of senior researchers outside of Multipark and/or non-academic partners using the infrastructure 2018-2020.**
   Göran Hermeren (Medical Ethics)
   Kristina Huug (Medical Ethics)
   Kristoffer Hansson (Social Science)
   Olle Lindvall (Lund Stem Cell Center)

5. **Does the infrastructure have a steering document accessible to the users? If yes, when was it last updated?[2]**
   No, we have documents describing responsibilities and tasks, but not a proåer steering document. It is not a technical platform

[1] If the infrastructure was first established in 2020, please include this information.

[2] Note that the Multipark leadership may ask to see this document with a very short notice.

6. **Is the infrastructure charging user fees? If yes, state the amount and what is covered by the user fees.**
   It is not a technical platform so userfees is not charged. But the pre-clinical coordinator and the clinical coordinator receives 50% funding from MUPA and the other 50% are funded via external sources.
   The clinical coordinator also supports other projects at the clinical neurology site.

7. **List publications generated with the help of this infrastructure during the past 3 years (2018-2020). Do not include manuscripts in preparation and please give the full reference (i.e., complete author list, complete title, journal name with year, volume, pages)[3].**

   Parmar M, Grealish S, Henchcliffe C.
   The future of stem cell therapies for Parkinson disease.
   Nature Reviews Neuroscience, 2020

   Parmar M, **Björklund A.**
   From Skin to Brain: A Parkinson's Disease Patient Transplanted with His Own Cells
   Cell Stem Cell, 2020

   Li W, Lao-Kaim NP, Roussakis AA, Martín-Bastida A, Valle-Guzman N, **Paul G**, Soreq E, Daws RE, Foltynie T, Barker RA, Hampshire A, Piccini P.
   Longitudinal functional connectivity changes related to dopaminergic decline in Parkinson's disease.
   Neuroimage Clin. 2020 Sep 2;28:102409. doi: 10.1016/j.nicl.2020.102409.

   Roussakis AA, Zeng Z, Lao-Kaim NP, Martin-Bastida A, Piccini P; **TRANSEURO consortium.**
   Parkinson's disease laterality: a 11C-PE2I PET imaging study.
   J Neurol. 2020 Sep 2. doi: 10.1007/s00415-020-10204-y.

   Designing stem-cell-based dopamine cell replacement trials for Parkinson's disease.
   Barker RA; **TRANSEURO consortium**.
   Nat Med. 2019 Jul;25(7):1045-1053. doi: 10.1038/s41591-019-0507-2.

   Kirkeby A and Barker RA.
   Growth factors for Parkinson Disease – is GDNF good enough?
   Nat Rev Neurol 15, 312–314 (2019)

   De Luca M, Aiuti A, Cossu G, **Parmar M**, Pellegrini G, Robey PG.
   Advances in stem cell research and therapeutic development.
   Nature Cell Biology, 2019

   Parmar M, Torper O, Drouin-Ouellet J.
   Cell-based therapy for Parkinson's disease: A journey through decades towards the light side of the Force.
   Eur J Neuroscience, 2019

[3] If the infrastructure was first established in 2020, please include this information here too.

Li W, Lao-Kaim NP, Roussakis AA, Martín-Bastida A, Valle-Guzman N, **Paul G,** Loane C, **Widner H,** Politis M, Foltynie T, Barker RA, Piccini P.
11 C-PE2I and 18 F-Dopa PET for assessing progression rate in Parkinson's: A longitudinal study.
Mov Disord. 2018 Jan;33(1):117-127. doi: 10.1002/mds.27183.

Abbot **et al.**
Report of the international conference on manufacturing and testing of pluripotent stem cells.
Biologicals 2018 Aug 24. (Meeting Report**).**

Paul G and Sullivan, A. Neurotrophic factors for Parkinson's disease:
Where are we and where do we go from here?
Eur J Neurosci. 2018 Aug 13. doi: 10.1111/ejn.14102.

Henchcliffe C, **Parmar M**.
Repairing the Brain: Cell Replacement Using Stem Cell-Based Technologies.
Journal of Parkinsons Disease**,** 2018

Hagbard L, Cameron K, August P, Penton C, **Parmar M**, Hay DC, Kallur T.
Developing defined substrates for stem cell culture and differentiation.
Philos Trans R Soc Lond B Biol Sci, 2018

Parmar M.
Towards stem cell based therapies for Parkinson's disease.
Development, 2018

Barker RA, Götz M, **Parmar M**.
New approaches for brain repair-from rescue to reprogramming.
Nature, 2018

Since the main effort of this platform is to move therapies from research labs to patients, our main acheivements cannot be measured via publications only. A major outcome of this group is preparing required documents and conducting regulatory meetings with relevant authorities, which we have successfully achieved as listed below:

2018 and 2020: Läkemedelsverket Sweden
2018 and 2020: MHRA – Medical Health Regulatory Authority , UK
2019 FDA -Food and Drug Administration