



Malin Parmar has helped initiate G-Force, a global alliance aiming to bring stem cell therapy for PD to the clinic

## THE FANTASTIC FOUR

RARE SCIENTIFIC ALLIANCE RALLIES BEHIND SHARED GOALS

TEXT: JENS PERSSON

**I**n the retail business, the term G-force is routinely used to promote “hi-tech” products, whether it be racing gear, clothing or watches with uniquely durable qualities. In May of this year, a group of Parkinson’s researchers chose that same name for a global alliance with real technological prowess. As we stand on the threshold of the first cell transplants in Parkinson’s patients in over a decade, within the EU-financed study TRANSEURO, key actors in the field are taking part in an unusual mobilization. Setting collaboration ahead of competition, progress ahead of ego, the world’s premiere scientists in developing stem cell derived nerve cells for transplantation are joining forces to pick up the baton where TRANSEURO leaves off.

Spanning from Kyoto to Brussels to New York, the alliance comprises four research clusters at the very frontline of their respective research lines. The initiative was born out of an earlier transatlantic collaboration. Breaking with traditional conventions, a previous EU network - focused on stem cell derived dopamine cells - invited an American research group to join their ranks. The outcome of that partnership was so productive that MultiPark's Malin Parmar and Roger Barker of Cambridge University decided to initiate this rare alliance to help bring the next generation of transplantable cells to fruition.

- When the funding expired from our previous EU-network, where the Americans were integral partners, we felt that it would be a major loss to end our collaborations which had been so valuable. I work closely with Roger Barker of Cambridge and we strongly believe that it is through open partnerships that we can really move the field forward. Some aspects of scientific competition can be truly counterproductive, says Malin Parmar.

Present at the alliance's first meeting, in London in May, were the two hosting EU networks, TRANSEURO and NeuroStemCellRepair, and the U.S. research group lead by Lorenz Studer as well as representatives from the world-renowned Center for iPS cell Research and Application lead by Jun Takahashi. TRANSEURO has laid the groundwork for this alliance in the past decade. Over the last eight years it has gathered all European expertise on fetal cell based transplants for Parkinson's disease. From the outset the network has promoted a culture of cooperation, not only within Europe's borders. The members of G-Force now hope to build on that culture as the field, in all likelihood, will move on from fetal cell based treatments to transplants with stem cell derived dopamine cells in the coming years.

The concept of a stronger climate of collaboration was really born out of necessity. Scientists are beginning to realize that the complex nature of cell therapies, especially relating to the brain, requires an open and cooperative research environment. Getting stem cells to become functioning dopamine cells, the method of delivering them to a specific target and learning how to get them to integrate in the brain are all extremely complicated processes. The sharing of ideas and data can not

only speed up progress in the field but also help researchers avoid pursuing costly dead ends.

- The different research programs will of course still be independent of one another but we have established areas where it will be useful to cooperate. For example, we have come to the conclusion that we should develop criteria by which to test the quality of the cells prior to transplantation. Similarly, we will coordinate how to evaluate the effects of the treatment in patients after transplantation, says Malin Parmar.

On historical merit alone, Lund University enjoys a lot of influence in this particular research field. Anders Björklund has not only been responsible for some of the major scientific advances here, he has also fostered a culture of collegiality and cooperation on a global scale. That goodwill track-record is now being put to use by Malin Parmar as she helps to usher in a new era of cooperation with the aim of accelerating the development of new therapies for people with Parkinson's.

- It is undoubtedly the case that Lund has a strong reputation in this field which has helped pave the way for us. Hand in hand with his scientific advances in the 1980s, Anders Björklund created friends rather than enemies, which won him respect the world over. So, when Lund initiates something like this, it carries some weight. In the same way that one can inherit people's enemies you can also inherit trust, and I have inherited the trust that Anders has built up within the field.