

Intra-arterial transplantation of stem cells in large animals – a minimally-invasive strategy for the treatment of disseminated neurodegeneration

Izabela Malysz-Cymborska^{1#}, Dominika Golubczyk^{1#}, Lukasz Kalkowski¹, Joanna Kwiatkowska¹, Michal Zawadzki², Joanna Głodek³, Piotr Holak³, Joanna Sanford⁴, Kamila Milewska¹, Zbigniew Adamiak³, Piotr Walczak⁵ and Mirosław Janowski⁵

¹ Dept of Neurosurgery, School of Medicine, Collegium Medicum, University of Warmia and Mazury in Olsztyn, Olsztyn, Poland

² Central Clinical Hospital of Ministry of the Interior and Administration in Warsaw, Poland

³ Dept of Surgery and Radiology, Faculty of Veterinary Medicine, University of Warmia and Mazury, Olsztyn, Poland

⁴ Sanford Biotech, Warsaw, Poland

⁵ Center for Advanced Imaging Research and Department of Diagnostic Radiology and Nuclear Medicine, University of Maryland School of Medicine, Baltimore, MD, USA

#These authors contributed equally to this work

***To whom correspondence should be addressed:**

Izabela Malysz-Cymborska

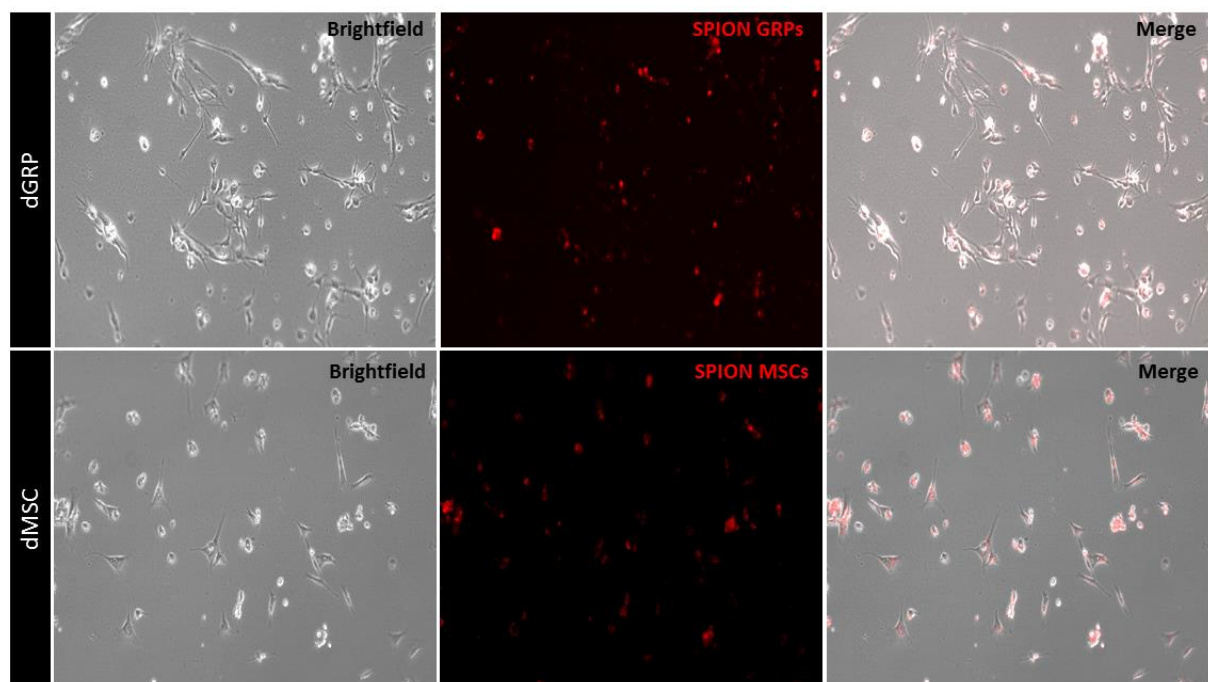
Department of Neurosurgery

School of Medicine

University of Warmia and Mazury, Olsztyn, Poland

ORCID iD 0000-0003-4192-6726

i.malysz-cymborska@uwm.edu.pl



Supplementary Figure 1. *Light microscopy of cells before transplantation.* Images of cGRPs (upper panel) and cMSCs (bottom panel) labeled with SPION for transplantation (10x magnification).