

Minimally Invasive Delivery of Microbeads with Encapsulated, Viable and Quiescent Neural Stem Cells to the Adult Subventricular Zone

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Supplementary Figure 1: Degradation of NSC Encapsulated Microbeads

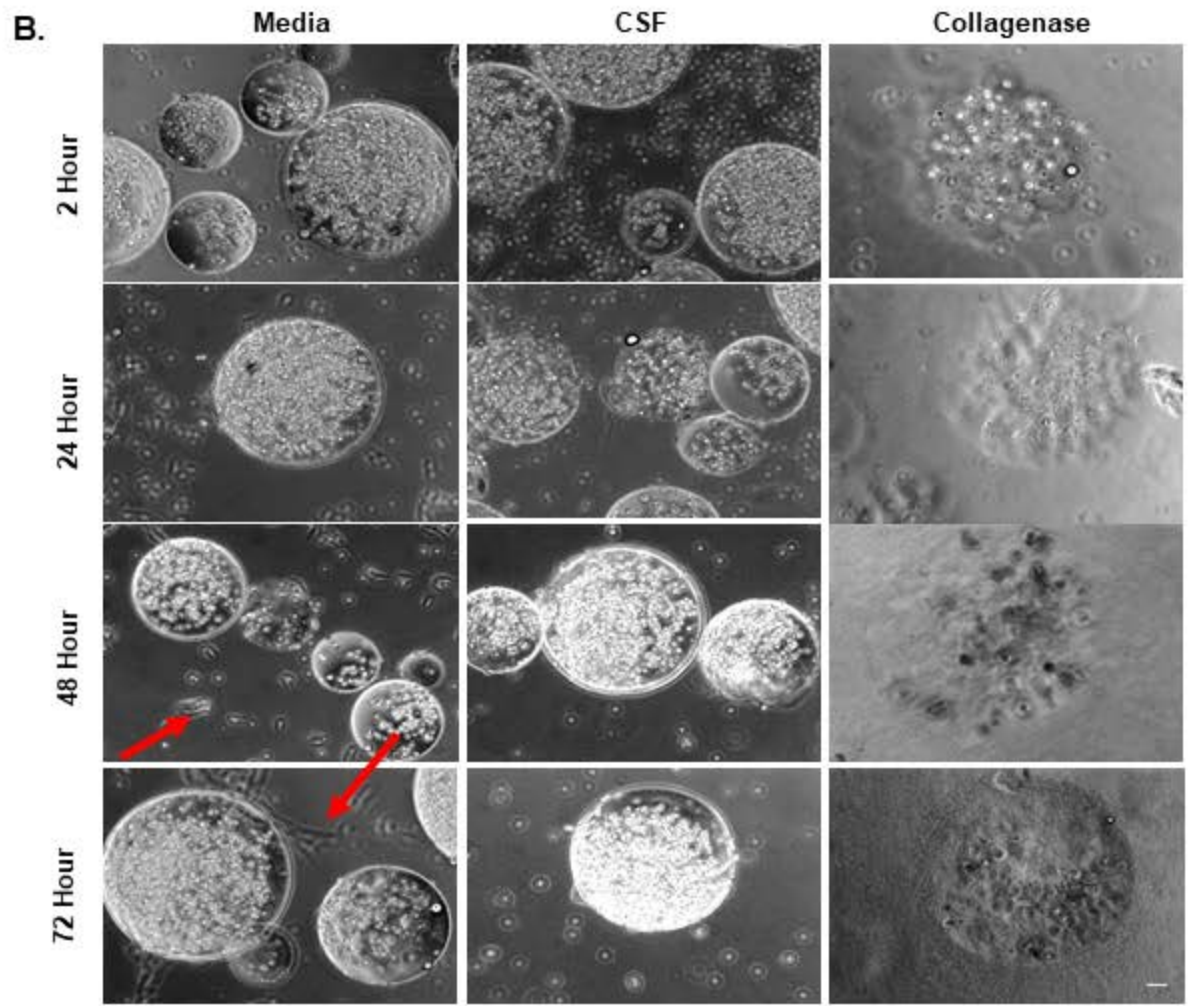
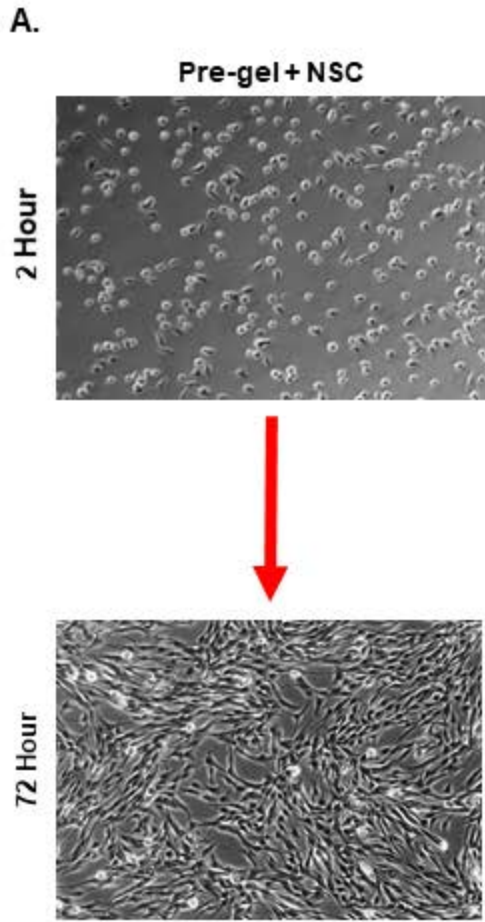
A) As a control, NSC were plated in PEG polymer and pre-gel solution, where cells remain healthy after 72 hours. This verifies that the polymer and photocrosslinking chemicals are not toxic to the cells in culture. B) Degradable microbeads in media (first panel), CSF (second panel), and 2 mg/ml collagenase (third panel) with encapsulated NSC. Cells loosely encapsulated at the surface of microbeads adhere and elongate on the well plate as seen at 48 and 72 hours (indicated by red arrows). Microbeads swell in the nutrient rich CSF, and degrade within 24 hours in the collagenase solution.

Scale bar (100 μm) representative of all images.

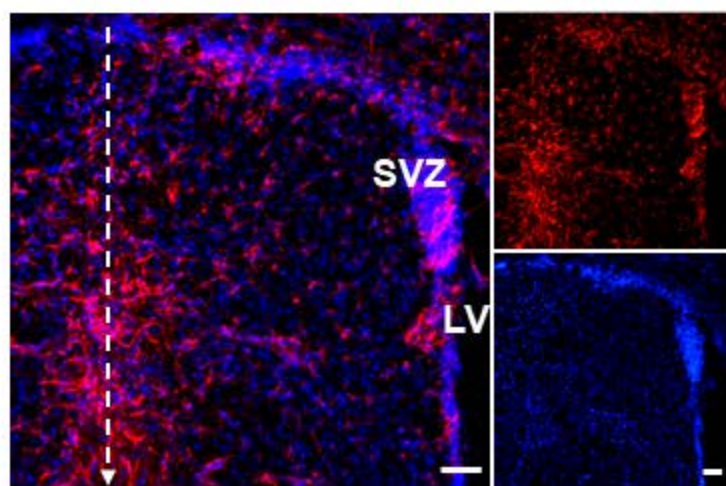
Supplementary Figure 2: Astrocytic and Microglial Reaction to Needle Stab

Illustrative image of astrocytic and microglial reaction to intra striatal injection. A) Astrocytes GFAP⁺ were visualized around the region of needle trajectory to lateral ventricle (LV) and subventricular zone (SVZ). B) A similar pattern was observed in microglial cells Iba1⁺ around the injection site.

Scale bar (50 μm) representative of all images.



NSC-GFP GFAP Hoechst



Iba1 Hoechst

