



Morgane Golan

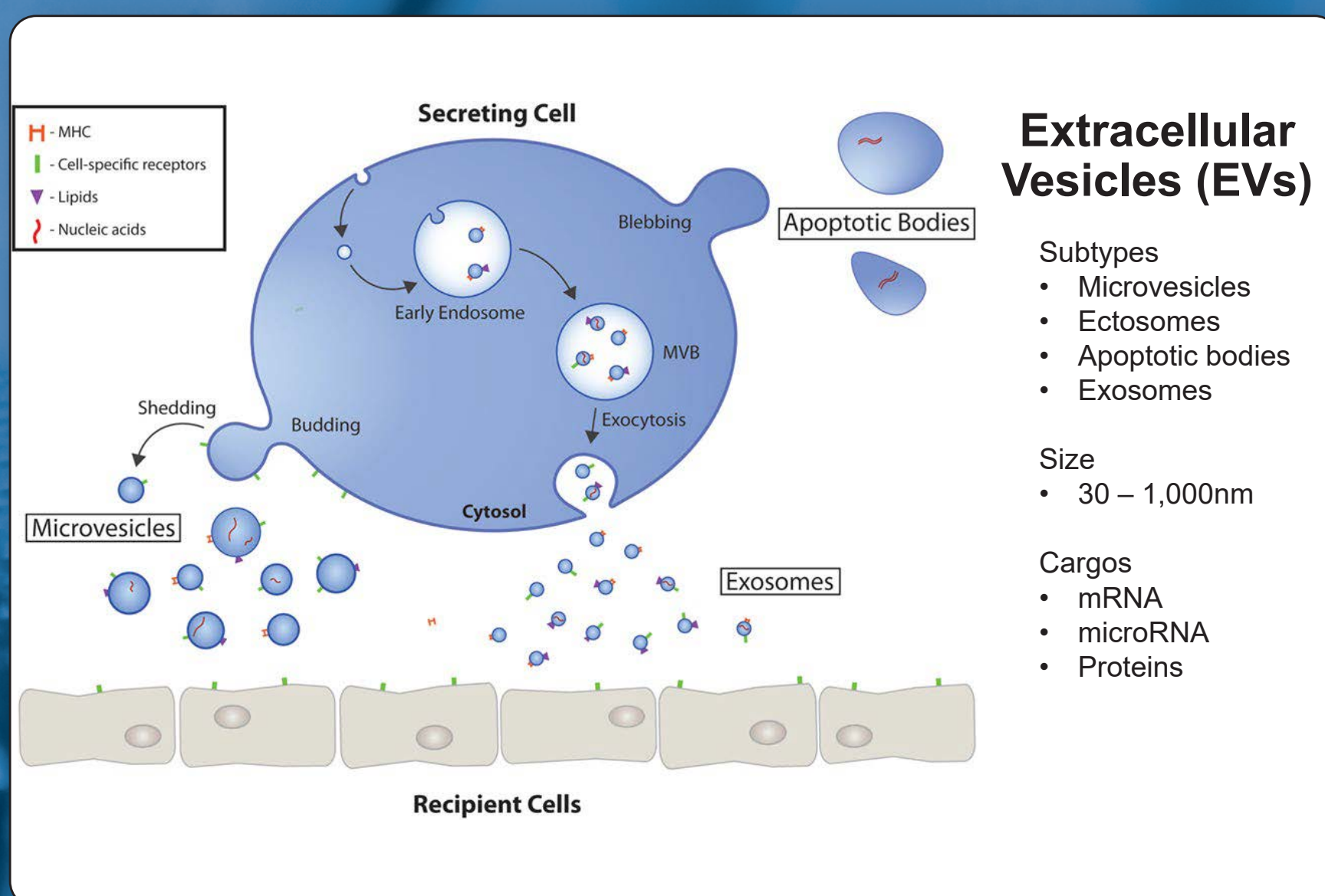
Ph.D. Student, Regenerative Medicine
Second Year ARCS Scholar
Cooper/Mukharji Award



UNIVERSITY OF
GEORGIA

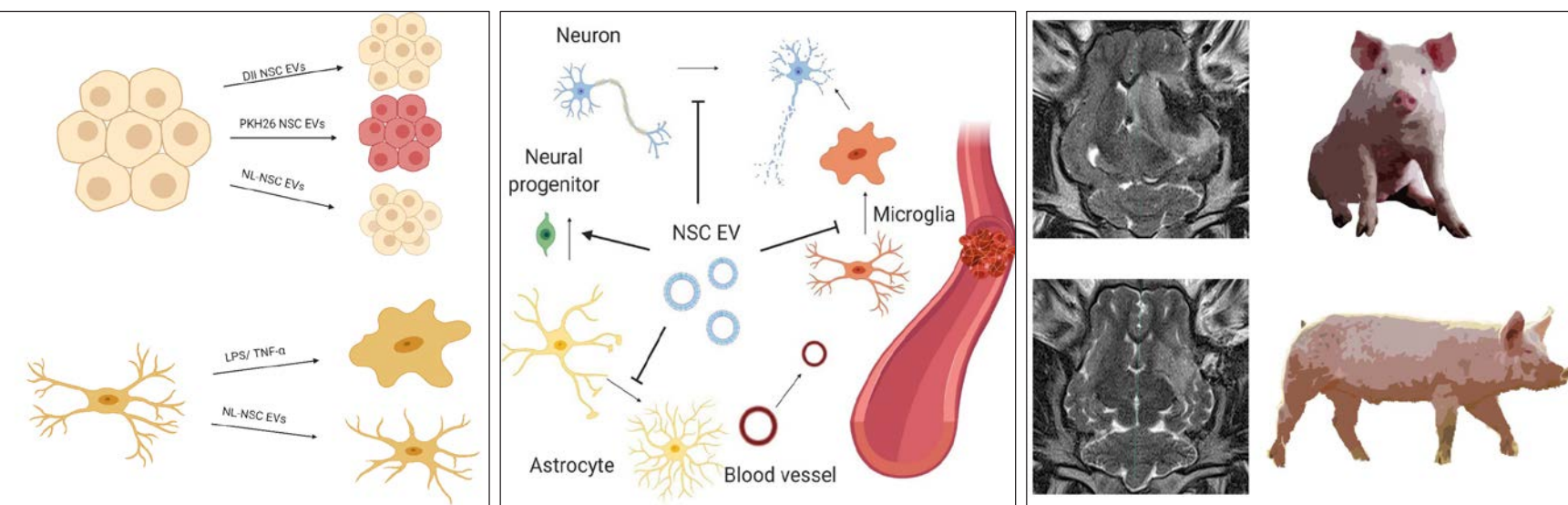
Optimizing extracellular vesicles

Neural stem cell-derived extracellular vesicles have great potential in regenerative medicine, but there are limitations to their ease of use and accessibility. I am working to optimize this novel therapeutic without compromising its potency.



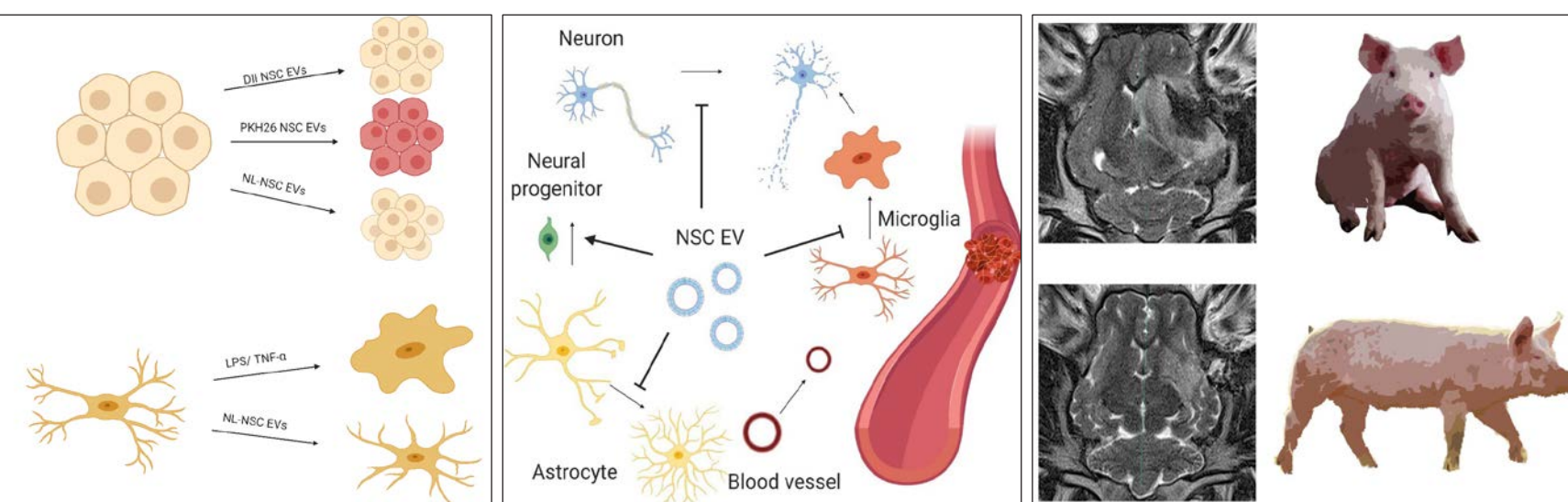
Neural Stem Cell-Derived (NSC) EVs in Action

NSC EVs attenuate microglia activation *in vitro* NSC EVs attenuate morphological changes *in vivo* after stroke NSC EVs promote enhanced recovery in porcine stroke model



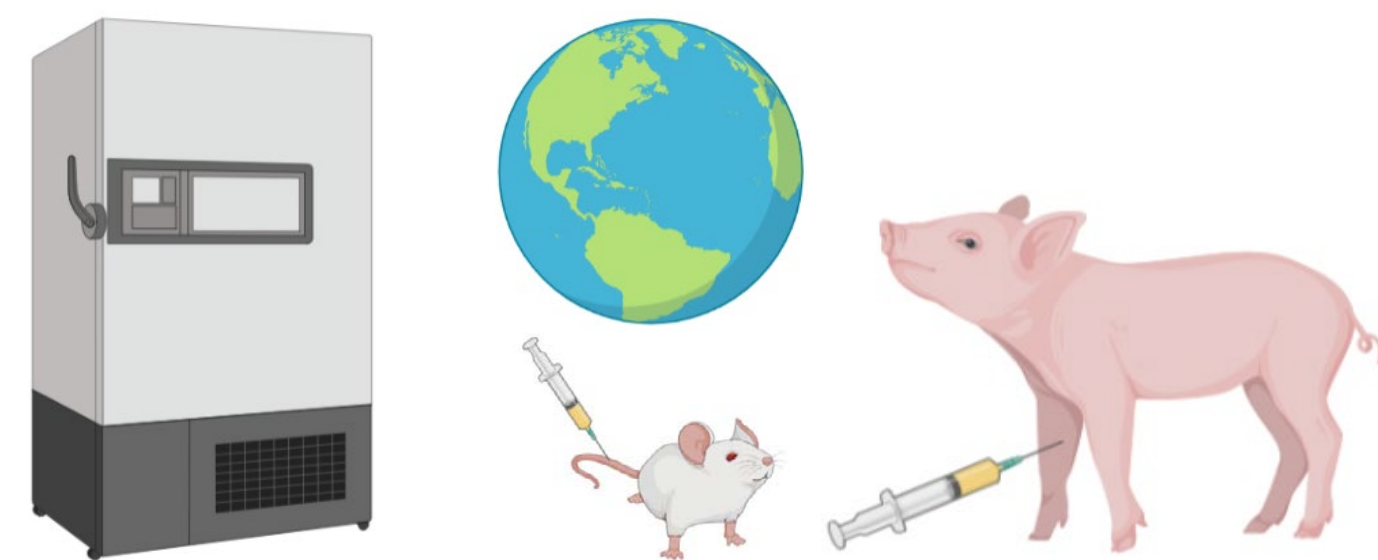
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Critical Factors Limiting EV Application

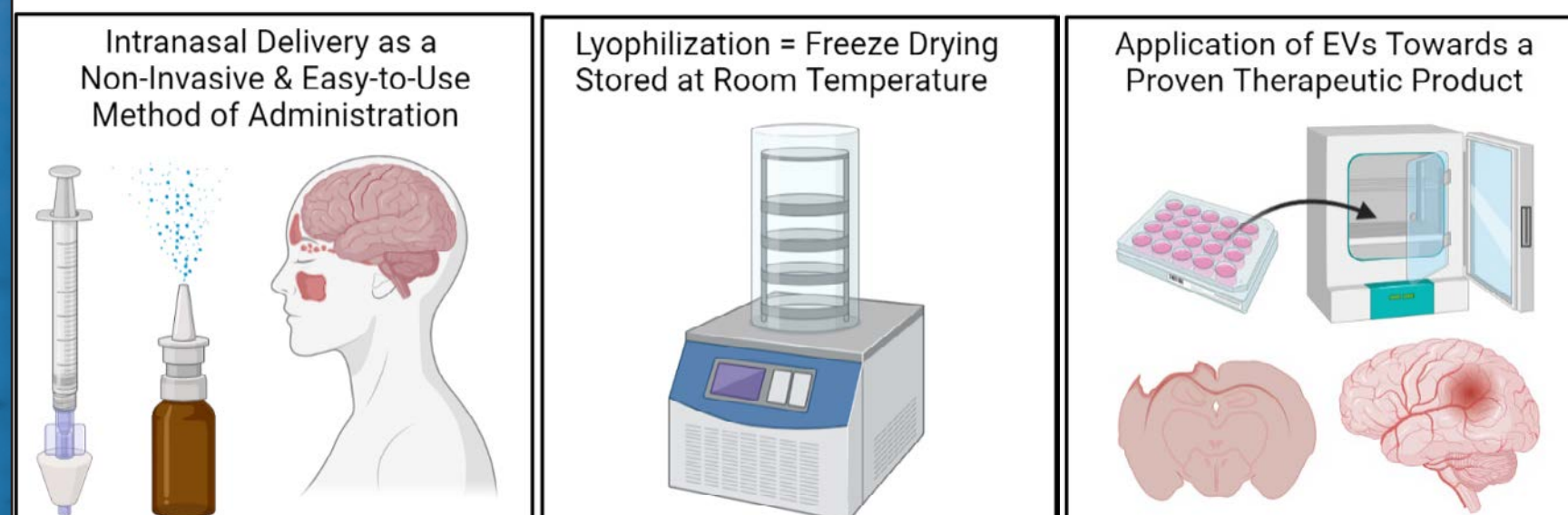
Storage & Administration



EVs are typically stored at -80 or -20°C and are administered intravenously

My Research in the Stice Lab

Test alternative patient-focused routes of administration Identify & validate a ready-to-use preservation technique for EVs Evaluate and maintain potency of EVs via *in vitro* assays & animal models



Images and figures:
Gustafson, D.; Veitch, S.; Fish, J. 2017
Webb, R; Kaiser, E.; et al. 2018
Dr. Steven Stice
Biorender.com



Scholar Awards Celebration
November 17, 2022