

# CNS Delivery and Anti-Inflammatory Effects of Intranasally Administered Cyclosporine-A in Cationic Nanoemulsion Formulations.

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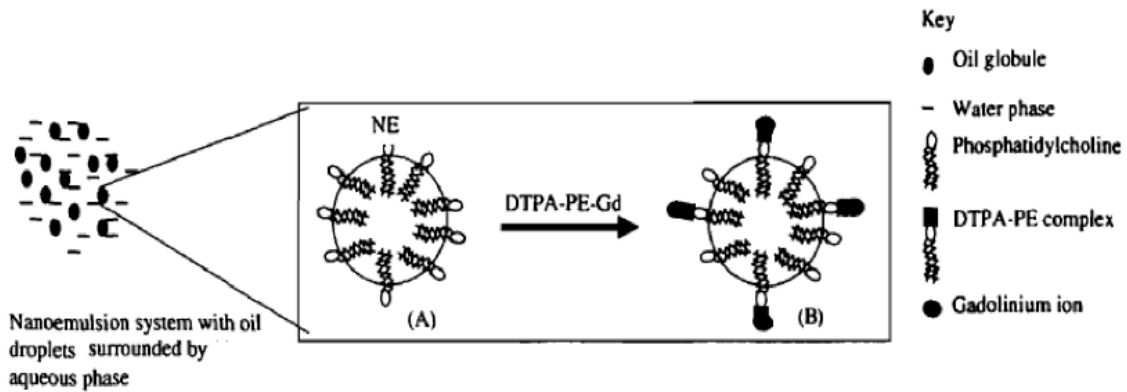
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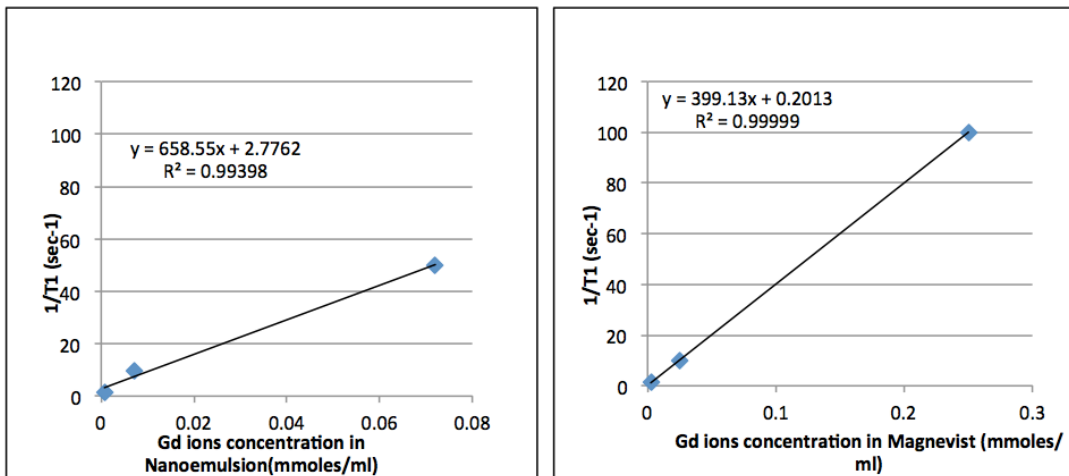
## 13. Supplementary figures

Formulation	Composition	CsA Initial Loading Conc. ( mg/ml)	Hydrodynamic Diameter of Oil Droplet (nm)	Polydispersity Index	Zeta Potential (mV)	Percent CsA Encapsulation
CsA-Encapsulated Anionic Nanoemulsion (NE-T)	Lipoid E80, Tween 80 and Flax-seed Oil	25	232±10*	0.25±0.06	-33±12	88±10
CsA-Encapsulated Cationic Nanoemulsion (NE-SA)	Lipoid E80, Tween 80, Stearylamine, and Flax-seed Oil	30	272±12	0.3±0.09	57±10	88±13

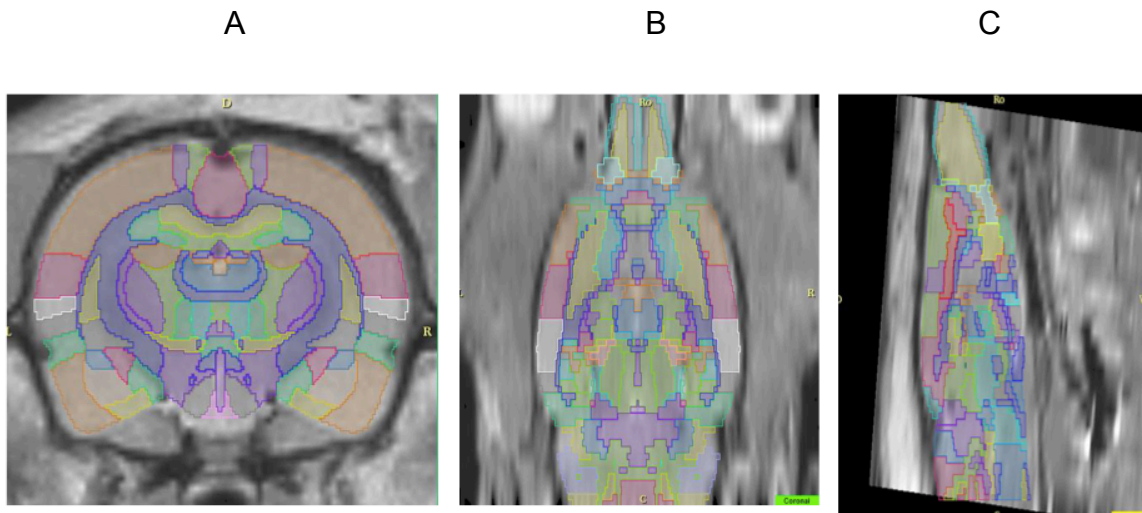
**Table 1:** Composition and characterization properties of Anionic (NE-T) and Cationic (NE-SA) Nanoemulsion formulation of Cyclosporine-A (CsA).



**Supplementary figure 1:** Schematic representation of a nanoemulsion (NE) complexed with DTPA-PE-Gd<sup>3+</sup>. *A: Surface arrangement of phosphatidylcholine molecules with lipophilic tail embedded within the oily droplet while polar head groups positioning on the interface of the oil and water phase. B: Association of DTPA-PE-Gd<sup>3+</sup> molecules with the oily droplet in analogous manner to phosphatidylcholine*



**Supplementary Figure 2:** *In vitro* MRI (Magnetic Resonance Imaging) relaxation rate plot of NE (nanoemulsion) and Magnevist ( $R1 = 1/T1$ ) as function of concentration of DTPA-PE-Gd<sup>3+</sup>.



**Supplementary Figure 3** (a) Brain atlas overlays of axial registration, (b) coronal view segmentation and (c) sagittal view segmentation