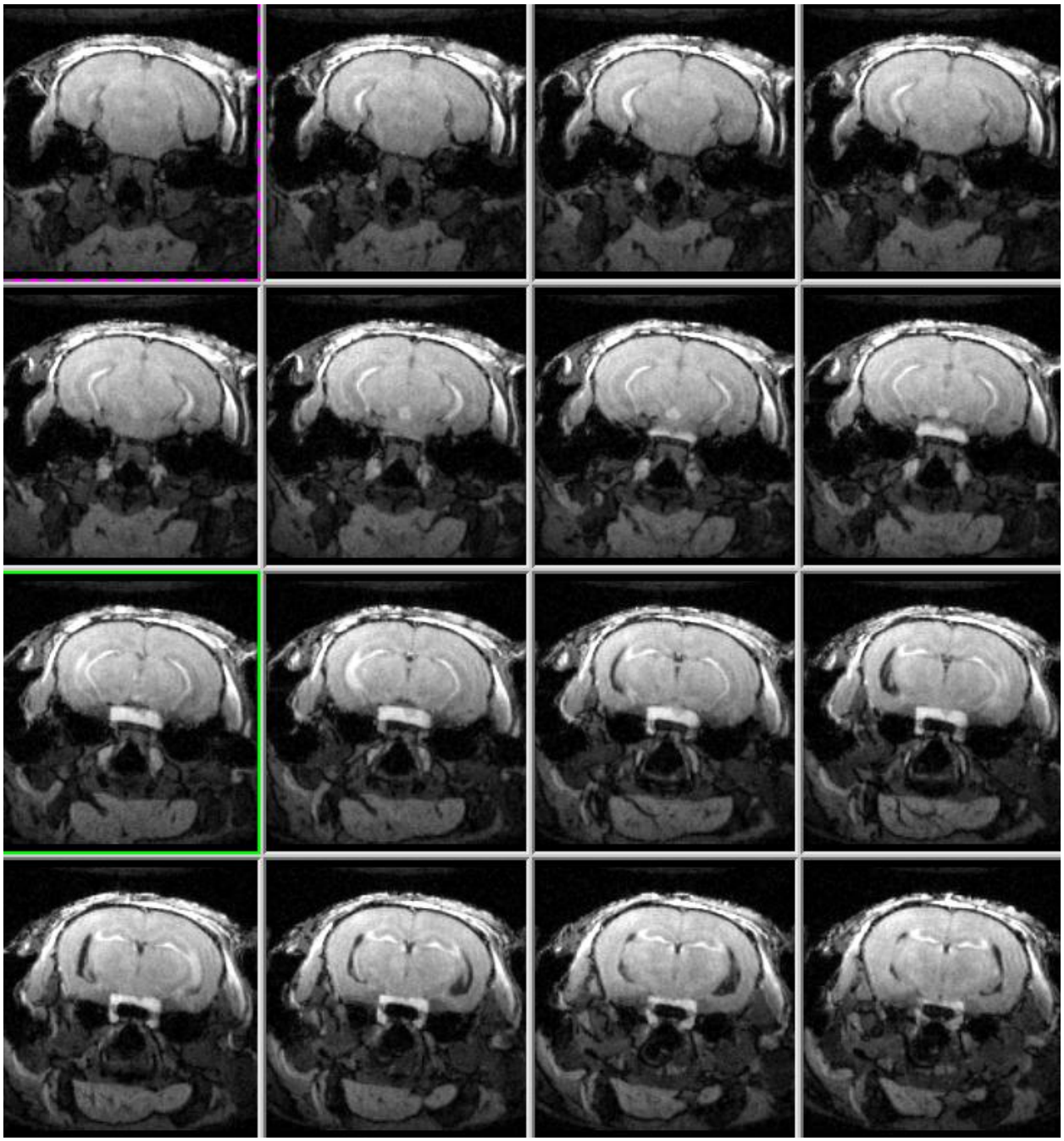
Protocol: Mouse Brain MnCl2

Purpose

Enhanced contrast between hippocampus and surrounding regions for measurement and segmentation.



Mouse Brain $MnCl_2$ Protocol – "C_MouseBrainMnCl2"					
Type	**Scan Name**	**In-plane resolution, slice thickness**	**FOV**	**Slices**	**Scan time**
Localizer	*1_tripilot*				
T1 weighted	*2_T1MDEFT_150_150_300_19m*	150µm X 150 µm, 300 µm	2.0cm x1.9 cm	30	19 min
T2 weighted	*3_T2RARE_150_150_150_18m*	150µm X 150 µm, 150 µm	2.0cm x1.9 cm	60	18 min
Minimum Contrast Reference Image	*4_MinConRx*	300µm X 300 µm, 600 µm	2.0cm x1.9 cm	20	1 m

Instructions

1. **Set up the two channel mouse brain array.** You will need training for this.
2. **Run the localizer, T1 and T2 weighted scans.**
3. **Set up the MinConRx protocol.** Load the protocol. Set a prescription that covers the entire region covered by the T1 and T2 scans. This might be tricky if you used off-center reads in your T1/T2 scans since the MinConRx scan will not do off-center reads. In that case, adjust the FOV so that it entirely covers the volume imaged in the T1/T2 scans.

MnCl2 Infusion

Our staff can consult with you on MnCl2 dosing protocols.

Notes

Coil: Mouse brain phased array surface coil or a volume coil can be used.

Post-Processing Support

BC: Correction for surface coil bias (bright near the coil, darker further away) is available for beta testing. This will require the *MinConRx* scan and the anatomical scan to be corrected. If you do not use a surface coil, this correction should not be necessary.