

## Supplemental material to:

A.M. Peters van Ton et al,  
*Neuroinflammation in cognitive decline post-cardiac surgery  
 (the FOCUS study): an observational study protocol*

### Appendix 1: MRI scan protocol – parameter settings

	Protocol Name	Sequence/Contrast parameters	Resolution(mm) Matrix Size Parallel Imaging	Duration (min:secs)
<b>T1-weighted MPRAGE</b>	MPRAGE	TR/TI/TE=2300/900/2.32ms Flip angle=8°	0.9x0.9x0.9mm 240x240x192 iPAT=2	5:21
<b>T2-weighted TSE TRA</b>	T2_tse_tra	TR/TE=3500/92 ms Flip angle = 120 °	0.4x0.4x5mm 230x173x154	2:01
<b>Susceptibility weighted</b>	Fl3D_SWI	TR/TE=27/20ms Flip angle = 15°	1x1x3mm 250x188x156 iPAT=2	2:43
<b>FLAIR</b>	T2_flair	TR/TI/TE=9000/87/2500ms Flip angle=150°	0.6x0.6x5mm 230x173x143	4:32
<b>Fieldmap</b>	Gre_field	TR/TE1/TE2=400/5.19/7.65 Flip angle= 60°	3.8x3.8x3mm 240x240x135	0:54
<b>DTI</b>	MDDW64	TR/TE=6900/67 Directions=108 b-value=1000 s/mm <sup>2</sup>	2x2x2mm 240x240x128 iPAT=2	12:47
<b>fMRI</b>	Ep2d	TR/TE=2390/30ms Flip angle= 90°	3.5x3.5x3.5 224x224x144	6:06
<b>TOF MR angiogram</b>	ToF	TR/TE=24/3.93ms Flip angle= 15°	0.5x0.5x0.6mm 200x150x154 iPAT=2	11:10
<b>T1-weighted SPACE pre-contrast &amp; post-contrast</b>	Tse3d_spc	TR/TE=750/20ms	0.5x0.5x0.9mm 231x231x51 iPAT=2	2x 3:49