

MRI Protocol Template 2013 ~ 12 & 32 Chn Brain Matrix Coil					
3 Tesla Siemens ~Trio TIM ~ (VB 17 Software ~ January 2012)					
Scanner installed March 2006					
Equipment	12 / 32 chn Head Coil Sponge & Angle side sponges for immobilization <i>Ear Plugs and ? Siemens / Avotech / MR Confon Headphones / Other ~ Based on Stimulus and Coil selection</i> <i>Physio (Pulse & Respiration, Ext Trigger)</i>				
Stimulus	Visual <u>OR</u> Auditory <u>OR</u> Both				
Coding Physio.	1fmri project # ID#				
Response Box	Unilateral <u>OR</u> Bilateral ~ Finger position ? Rt Hand 1-4, (index -Little finger) Lt Hand 6 -9 (Trigger is 5 from the scanner)				
Notes	All Imaging to be completed in the Axial Oblique plane ~ intercollosal line ~ ACPC Line ? Utilize this sheet as a guide to design your fMRI protocol for your project ~ ~ This represents our basic protocol ~ Areas in Bold Italic represents the information we require				
Scheduled timeslot	30 mins - 2.0 hrs				
Pilot Runs	To be coordinated with Senior MRI Technologist				
fMRI Protocol	12 Chn Coil				
Series 1	Auto Align Scout				00:00:46
Series 2	Localizer				00:01:11
Series 3	3D MP Rage Obl Ax	Anatomical	2000TR, 2.63TE, Flip 9, FOV 256mm, 160 Slices, 1.0/0, 256X256, 1Av		00:06:26
Series 4 ~ Resting	ep2d_Pace Obl	180 measurements	2000TR, 30TE, Flip 70, FOV 200, 30 Slices, 5/0, 64x64		00:06:06
Series 5	ep2d_Pace Obl	? Measurements	2000TR, 30TE, Flip 70, FOV 200, 30 Slices, 5/0, 64x64		00:00:00
	Timepoints = total time / TR				
	32 Chn Coil				
Series 1	Auto Align Scout				00:00:46
Series 2	Localizer				00:01:11
Series 3	3D MP Rage Obl Ax	Anatomical	2000TR, 2.63TE, Flip 9, FOV 256mm, 160 Slices, 1.0/0, 256X256, 1Av		00:06:26
Series 4 ~ Resting	2D ep2d_pace Obl	180 measurements	2000TR, 27TE, Flip 70, FOV 200, 30 Slices, 5/0, 64 x 64		00:06:06
Series 5 -	2D ep2d_pace Obl	? Measurements	2000TR, 27TE, Flip 70, FOV 200, 40 Slices, 3.5/0, 64 x 64		00:00:00
	Optional Anatomical sequences				
Series	3D MP Rage Obl Sag_iPAT	Anatomical	2400TR,2.43TE,1000 TI,Flip 8,FOV 256mm,192 Slices,1.0/0,256X256, 1A		00:06:26
Series	2D FLAIR~IPAT 2/3CC	Anatomical-WMD	9000TR, 97TE, 2500 TI, Flip 165, FOV 220mm, 32 Slices, 5/0, 1Av, 3CC		00:03:38
Series	2D OblAx DTI34dir2.2is	B0 / 1000	7900TR, 84TE, FOV 242, IPAT 2, 68 Slices, 2.2/0		00:09:22
Series	2D Obl TSE R High Res	Anatomical	3000TR, 68ms, FOV 220mm, 22 Slices, 3.0/0, 512x512		00:06:08
Series	2D Obl TSE/PD T2	PD/T2 Anatomical	TR2900,TE19/93,Flip180 FOV224,TF7,2Av, 48 slices, 3/0, 256X256		00:06:24
Series	2D Obl Gradient Echo	GRE Anatomical	600 TR, 20TE, FOV 240, Flip 20, 2 Av, 26 Slices, 6/0, 256X256		00:02:50
Series	2D Obl DTI 34 Dir	B0-4 / 1000-30	9000TR, 87TE, FOV 242, 72 Slices, 2/0, pf 6/8, 2 Av, 128 X 128, pf 6/8		00:10:44
Series	2D Obl DTI 66 Dir	B0-6 / 1000-60	9700TR, 87TE, FOV 256, 72 Slices, 2/0, pf 6/8, 1 Av, 128X128, pf 6/8		00:10:11
Series	2D Obl DWI~ B0 /1000	DWI	5000TR, 93TE, FOV 220, 30 Slices, 4.5/0.5, 1 Av, 192X192		00:01:35
Series	3D Obl SWI_iPAT_2	3D ~ High Resolution	28TR, 20TE, FOV 224, 112 Slices / Slab, Flip 15, 1Av, 448X448		00:10:43
	Siemens Pulsed ASL				
Series	2D FLASH Obl	Body Coil Reference	250TR, 2.46TE, Flip 70, FOV 224, 26 Slices, 5/0.3, B.coil		0:00:34
Series	2D ep2d_pasl Obl	3 measurements	10000TR, 13TE, Flip 90, FOV 224, 26 Slices, 5/0.3, TI25 25 4000		0:01:00
Series	2D ep2d_pasl Obl	151 measurements	3000TR, 13TE, Flip 90, FOV 224, 26 Slices, 5/0.3,TI700/1800~1600		0:07:42
Series	2D ep2d_pasl Obl	151 measurements	2500TR, 13TE, Flip 90, FOV 224, 14 Slices, 5/0.0,TI700/1800~1600		0:06:25
	Dual - echo pCASL ~ 12 Chn Coil				
	3D fl3d_rd	Vessels ~ Loc	23TR, 8TE, Flip 10, FOV 300, 26 slices / Slab, PF 6/8, 256 X 192, 1 Av		0:00:25
	2D ep2d_DE_pcasl_iPAT	3 measurements	10000TR ,9.1TE1, 25TE2, Flip 90, FOV 220, 16 Slices, 6/1, 64X64, pf 7/8		0:01:00
	2D ep2d_DE_pcasl_iPAT	120 measurements	4000TR, 9.1TE1, 25TE2, Flip 90, FOV 220, 16 Slices, 6/1, 64X64,PF 7/8		0:08:12
	Dual - echo pCASL ~ 32 Chn Coil				
Series	3D fl3d_rd	Vessels ~ Loc	23TR, 8TE, Flip 10, FOV 300, 26 slices / Slab, PF 6/8, 256 X 192, 1 Av		0:00:25
Series	2D ep2d_DE_pcasl_iPAT	3 measurements	10000TR ,10TE1, 30TE2, Flip 90, FOV 220, 21 Slices, 5/1, 64X64, PF 7/8		0:01:00
Series	2D ep2d_DE_pcasl_iPAT	120 measurements	3520TR, 10TE1, 30TE2, Flip 90, FOV 220, 21 Slices, 5/1, 64X64,PF 7/8		0:07:13
fMRI Intructions between Series					00:01:00
Set up & Removal of Participant					00:20:00
Total Study Time					02:31:55

