

\\BIC\_FUNCTIONAL\Functional\Dr.Bernhardt\MICA-MTL\_Template\_new\_29May2018\mprage-0.8iso

TA: 6:44 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 2 Rel. SNR: 1.00 : tfl

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	On
Start measurements	Single measurement

**Routine**

Slab group	1
Slabs	1
Dist. factor	50 %
Position	R1.7 A32.0 H0.0 mm
Orientation	S > C-2.4 > T-1.4
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	224
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.80 mm
TR	2300.0 ms
TE	3.14 ms
Averages	1
Concatenations	1
Filter	Raw filter, Prescan Normalize, Image Filter
Coil elements	HC1-7

**Contrast - Common**

TR	2300.0 ms
TE	3.14 ms
Magn. preparation	Non-sel. IR
TI	900 ms
Flip angle	9 deg
Fat suppr.	None
Water suppr.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.80 mm
Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off

**Resolution - Common**

Interpolation	Off
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**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Accel. factor 3D	1
Reference scan mode	Integrated

**Resolution - Filter Image**

Image Filter	On
Intensity	Medium
Edge Enhancement	3
Smoothing	3
Unfiltered images	On
Distortion Corr.	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	On
Elliptical filter	Off

**Geometry - Common**

Slab group	1
Slabs	1
Dist. factor	50 %
Position	R1.7 A32.0 H0.0 mm
Orientation	S > C-2.4 > T-1.4
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	224
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.80 mm
TR	2300.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slab group	1
Position	R1.7 A32.0 H0.0 mm
Orientation	S > C-2.4 > T-1.4
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Initial Position	R0.6 A0.8 H32.6
R	0.6 mm
A	0.8 mm
H	32.6 mm
Initial Rotation	0.03 deg
Initial Orientation	Sagittal

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H

**System - Miscellaneous**

Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	Head > Basis
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	R1.7 A32.0 H0.0 mm
Orientation	S > C-2.4 > T-1.4
Rotation	-5.49 deg
A >> P	256 mm
F >> H	256 mm
R >> L	180 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Non-sel.

**System - Tx/Rx**

Frequency 1H	123.250064 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	2300.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	Non-sel. IR
TI	900 ms
Fat suppr.	None
Dark blood	Off
FoV read	256 mm
FoV phase	100.0 %
Phase resolution	100 %

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off

**Inline - Common**

Save original images	On
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**Inline - MIP**

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

**Inline - Composing**

Distortion Corr.	Off
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**Inline - MapIt**

Save original images	On
MapIt	None
Flip angle	9 deg
Measurements	1
TR	2300.0 ms
TE	3.14 ms

**Sequence - Part 1**

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Off
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	7.7 ms
Bandwidth	240 Hz/Px

**Sequence - Part 2**

RF pulse type	Fast
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	224

**Sequence - Assistant**

Mode	Off
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\\BIC\_FUNCTIONAL\Functional\Dr.Bernhardt\MICA-MTL\_Template\_new\_29May2018\dw\_i\_b2000\_90

TA: 6:08 PM: REF Voxel size: 1.6×1.6×1.6 mmPAT: 2 Rel. SNR: 1.00 : epse

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	On
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	93
Dist. factor	0 %
Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	3500 ms
TE	64.40 ms
Multi-band accel. factor	3
Filter	None
Coil elements	HC1-7

**Contrast - Common**

TR	3500 ms
TE	64.40 ms
MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Enabled

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	224 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
Base resolution	140
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2

**Resolution - iPAT**

Ref. lines PE	24
Reference scan mode	Single-shot

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off
Dynamic Field Corr.	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	93
Dist. factor	0 %
Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	3500 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	3

**Geometry - AutoAlign**

Slice group	1
Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	R0.1 A11.1 H2.7
R	0.1 mm
A	11.1 mm
H	2.7 mm
Initial Rotation	2.38 deg
Initial Orientation	T > C
T > C	2.9
> S	-1.4

**Geometry - Saturation**

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Enabled
Special sat.	None

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain

**System - Miscellaneous**

Coil Select Mode	Default
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**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	224 mm
R >> L	224 mm
F >> H	149 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	123.250064 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	3500 ms
Multi-band accel. factor	3

**Physio - PACE**

Resp. control	Off
Multi-band accel. factor	3

**Diff - Neuro**

Diffusion mode	Free
Diff. directions	90
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm <sup>2</sup>
b-value 2	2000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
FA maps	Off
Mosaic	On
Tensor	Off
Noise level	40

**Diff - Body**

Diffusion mode	Free
Diff. directions	90
Diffusion Scheme	Monopolar
Diff. weightings	2

**Diff - Body**

b-value 1	0 s/mm <sup>2</sup>
b-value 2	2000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm <sup>2</sup>
Noise level	40

**Diff - Composing**

Distortion Corr.	Off
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**Sequence - Part 1**

Introduction	Off
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.76 ms
Bandwidth	1488 Hz/Px

**Sequence - Part 2**

EPI factor	140
Gradient mode	Performance
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	2560 us
Refocus pulse duration	5120 us
Single-band images	Off
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off

\\BIC FUNCTIONAL\Functional\Dr.Bernhardt\MICA-MTL\_Template\_new\_29May2018\dw\_i\_b700\_40

TA: 3:13 PM: FIX Voxel size: 1.6×1.6×1.6 mmPAT: 2 Rel. SNR: 1.00 : epse

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	93
Dist. factor	0 %
Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	3500 ms
TE	64.40 ms
Multi-band accel. factor	3
Filter	None
Coil elements	HC1-7

**Contrast - Common**

TR	3500 ms
TE	64.40 ms
MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Enabled

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	224 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
Base resolution	140
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2

**Resolution - iPAT**

Ref. lines PE	24
Reference scan mode	Single-shot

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off
Dynamic Field Corr.	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	93
Dist. factor	0 %
Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	3500 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	3

**Geometry - AutoAlign**

Slice group	1
Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	R0.1 A11.1 H2.7
R	0.1 mm
A	11.1 mm
H	2.7 mm
Initial Rotation	2.38 deg
Initial Orientation	T > C
T > C	2.9
> S	-1.4

**Geometry - Saturation**

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Enabled
Special sat.	None

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain

**System - Miscellaneous**

Coil Select Mode	Default
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**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	224 mm
R >> L	224 mm
F >> H	149 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	123.250064 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	3500 ms
Multi-band accel. factor	3

**Physio - PACE**

Resp. control	Off
Multi-band accel. factor	3

**Diff - Neuro**

Diffusion mode	Free
Diff. directions	40
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm <sup>2</sup>
b-value 2	700 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
FA maps	Off
Mosaic	On
Tensor	Off
Noise level	40

**Diff - Body**

Diffusion mode	Free
Diff. directions	40
Diffusion Scheme	Monopolar
Diff. weightings	2

**Diff - Body**

b-value 1	0 s/mm <sup>2</sup>
b-value 2	700 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm <sup>2</sup>
Noise level	40

**Diff - Composing**

Distortion Corr.	Off
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**Sequence - Part 1**

Introduction	Off
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.76 ms
Bandwidth	1488 Hz/Px

**Sequence - Part 2**

EPI factor	140
Gradient mode	Performance
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	2560 us
Refocus pulse duration	5120 us
Single-band images	Off
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off

\\BIC FUNCTIONAL\Functional\Dr.Bernhardt\MICA-MTL\_Template\_new\_29May2018\dw\_i\_b300\_10

TA: 1:28 PM: FIX Voxel size: 1.6×1.6×1.6 mmPAT: 2 Rel. SNR: 1.00 : epse

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	93
Dist. factor	0 %
Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	3500 ms
TE	64.40 ms
Multi-band accel. factor	3
Filter	None
Coil elements	HC1-7

**Contrast - Common**

TR	3500 ms
TE	64.40 ms
MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Enabled

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	224 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
Base resolution	140
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2

**Resolution - iPAT**

Ref. lines PE	24
Reference scan mode	Single-shot

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off
Dynamic Field Corr.	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	93
Dist. factor	0 %
Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	3500 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	3

**Geometry - AutoAlign**

Slice group	1
Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	R0.1 A11.1 H2.7
R	0.1 mm
A	11.1 mm
H	2.7 mm
Initial Rotation	2.38 deg
Initial Orientation	T > C
T > C	2.9
> S	-1.4

**Geometry - Saturation**

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Enabled
Special sat.	None

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain

**System - Miscellaneous**

Coil Select Mode	Default
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**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	224 mm
R >> L	224 mm
F >> H	149 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	123.250064 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	3500 ms
Multi-band accel. factor	3

**Physio - PACE**

Resp. control	Off
Multi-band accel. factor	3

**Diff - Neuro**

Diffusion mode	Free
Diff. directions	10
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm <sup>2</sup>
b-value 2	300 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
FA maps	Off
Mosaic	On
Tensor	Off
Noise level	40

**Diff - Body**

Diffusion mode	Free
Diff. directions	10
Diffusion Scheme	Monopolar
Diff. weightings	2

**Diff - Body**

b-value 1	0 s/mm <sup>2</sup>
b-value 2	300 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm <sup>2</sup>
Noise level	40

**Diff - Composing**

Distortion Corr.	Off
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**Sequence - Part 1**

Introduction	Off
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.76 ms
Bandwidth	1488 Hz/Px

**Sequence - Part 2**

EPI factor	140
Gradient mode	Performance
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	2560 us
Refocus pulse duration	5120 us
Single-band images	Off
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off



\\BIC FUNCTIONAL\Functional\Dr.Bernhardt\MICA-MTL\_Template\_new\_29May2018\dw\_i\_b0\_5PA

TA: 1:14 PM: FIX Voxel size: 1.6×1.6×1.6 mmPAT: 2 Rel. SNR: 1.00 : epse

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

**Routine**

Slice group	1
Slices	93
Dist. factor	0 %
Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Phase enc. dir.	P >> A
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	3500 ms
TE	64.40 ms
Multi-band accel. factor	3
Filter	None
Coil elements	HC1-7

**Contrast - Common**

TR	3500 ms
TE	64.40 ms
MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Enabled

**Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

**Resolution - Common**

FoV read	224 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
Base resolution	140
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2

**Resolution - iPAT**

Ref. lines PE	24
Reference scan mode	Single-shot

**Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off
Dynamic Field Corr.	Off

**Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

**Geometry - Common**

Slice group	1
Slices	93
Dist. factor	0 %
Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Phase enc. dir.	P >> A
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	1.60 mm
TR	3500 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	3

**Geometry - AutoAlign**

Slice group	1
Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Phase enc. dir.	P >> A
AutoAlign	Head > Brain
Initial Position	R0.1 A11.1 H2.7
R	0.1 mm
A	11.1 mm
H	2.7 mm
Initial Rotation	-177.62 deg
Initial Orientation	T > C
T > C	2.9
> S	-1.4

**Geometry - Saturation**

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Enabled
Special sat.	None

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain

**System - Miscellaneous**

Coil Select Mode	Default
------------------	---------

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	R1.5 A23.6 H0.3 mm
Orientation	Transversal
Rotation	180.00 deg
A >> P	224 mm
R >> L	224 mm
F >> H	149 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	123.250064 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	3500 ms
Multi-band accel. factor	3

**Physio - PACE**

Resp. control	Off
Multi-band accel. factor	3

**Diff - Neuro**

Diffusion mode	Free
Diff. directions	6
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm <sup>2</sup>
b-value 2	50 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
FA maps	Off
Mosaic	On
Tensor	Off
Noise level	40

**Diff - Body**

Diffusion mode	Free
Diff. directions	6
Diffusion Scheme	Monopolar
Diff. weightings	2

**Diff - Body**

b-value 1	0 s/mm <sup>2</sup>
b-value 2	50 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm <sup>2</sup>
Noise level	40

**Diff - Composing**

Distortion Corr.	Off
------------------	-----

**Sequence - Part 1**

Introduction	Off
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.76 ms
Bandwidth	1488 Hz/Px

**Sequence - Part 2**

EPI factor	140
Gradient mode	Performance
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	2560 us
Refocus pulse duration	5120 us
Single-band images	Off
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off

\\BIC FUNCTIONAL\Functional\Dr.Bernhardt\MICA-MTL\_Template\_new\_29May2018\rsfmri-3mm-bol  
d\_AP

TA: 7:07 PM: FIX Voxel size: 3.0×3.0×3.0 mmPAT: Off Rel. SNR: 1.00 : epfid

### Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	On
Start measurements	Single measurement

### Routine

Slice group	1
Slices	48
Dist. factor	0 %
Position	R0.3 P4.3 H6.5 mm
Orientation	T > C-32.1 > S-2.5
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	240 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	600 ms
TE	30.00 ms
Multi-band accel. factor	6
Filter	Prescan Normalize
Coil elements	HC1-7

### Contrast - Common

TR	600 ms
TE	30.00 ms
MTC	Off
Magn. preparation	None
Flip angle	50 deg
Fat suppr.	Fat sat.

### Contrast - Dynamic

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	700
Delay in TR	0 ms
Multiple series	Off

### Resolution - Common

FoV read	240 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
Base resolution	80
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

### Resolution - iPAT

PAT mode	None
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### Resolution - Filter Image

Distortion Corr.	Off
Prescan Normalize	On

### Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off
Hamming	Off

### Geometry - Common

Slice group	1
Slices	48
Dist. factor	0 %
Position	R0.3 P4.3 H6.5 mm
Orientation	T > C-32.1 > S-2.5
Phase enc. dir.	A >> P
FoV read	240 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	600 ms
Multi-slice mode	Interleaved
Series	Descending
Multi-band accel. factor	6

### Geometry - AutoAlign

Slice group	1
Position	R0.3 P4.3 H6.5 mm
Orientation	T > C-32.1 > S-2.5
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	R0.3 P4.3 H6.5
R	0.3 mm
P	4.3 mm
H	6.5 mm
Initial Rotation	1.16 deg
Initial Orientation	T > C
T > C	-32.1
> S	-2.5

### Geometry - Saturation

Fat suppr.	Fat sat.
Special sat.	None

### System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

### System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off

**System - Adjustments**

Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	R0.3 P4.3 H6.5 mm
Orientation	T > C-32.1 > S-2.5
Rotation	1.16 deg
A >> P	240 mm
R >> L	240 mm
F >> H	144 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	123.250064 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	600 ms
Multi-band accel. factor	6

**BOLD**

GLM Statistics	Off
Dynamic t-maps	Off
Ignore meas. at start	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	20
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off
Measurements	700
Delay in TR	0 ms

**BOLD**

Multiple series	Off
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**Sequence - Part 1**

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.54 ms
Bandwidth	2404 Hz/Px

**Sequence - Part 2**

EPI factor	80
Gradient mode	Performance
Excitation	Standard
RF spoiling	Off

**Sequence - Special**

Excite pulse duration	2560 us
Single-band images	Off
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

\\BIC\_FUNCTIONAL\Functional\Dr.Bernhardt\MICA-MTL\_Template\_new\_29May2018\rsfmri-3mm\_se\_ AP

TA: 0:28 PM: FIX Voxel size: 3.0×3.0×3.0 mmPAT: Off Rel. SNR: 1.00 : epse

### Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

### Routine

Slice group	1
Slices	48
Dist. factor	0 %
Position	R2.4 A8.0 H3.3 mm
Orientation	T > C-35.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	240 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	4029 ms
TE	48.00 ms
Multi-band accel. factor	1
Filter	Prescan Normalize
Coil elements	HC1-7

### Contrast - Common

TR	4029 ms
TE	48.00 ms
MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Enabled

### Contrast - Dynamic

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	6
Delay in TR	0 ms
Multiple series	Off

### Resolution - Common

FoV read	240 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
Base resolution	80
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

### Resolution - iPAT

PAT mode	None
----------	------

### Resolution - Filter Image

Distortion Corr.	Off
Prescan Normalize	On
Unfiltered images	Off

### Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off
Hamming	Off

### Geometry - Common

Slice group	1
Slices	48
Dist. factor	0 %
Position	R2.4 A8.0 H3.3 mm
Orientation	T > C-35.0
Phase enc. dir.	A >> P
FoV read	240 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	4029 ms
Multi-slice mode	Interleaved
Series	Descending
Multi-band accel. factor	1

### Geometry - AutoAlign

Slice group	1
Position	R2.4 A8.0 H3.3 mm
Orientation	T > C-35.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	R0.3 P4.3 H6.5
R	0.3 mm
P	4.3 mm
H	6.5 mm
Initial Rotation	1.16 deg
Initial Orientation	T > C
T > C	-32.1
> S	-2.5

### Geometry - Saturation

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Enabled
Special sat.	None

### System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

### System - Adjustments

B0 Shim mode	Standard
--------------	----------

**System - Adjustments**

B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

! Position	R2.4 A8.0 H3.3 mm
! Orientation	T > C-35.0
! Rotation	0.00 deg
! A >> P	240 mm
! R >> L	240 mm
! F >> H	144 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	123.250064 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	4029 ms
Multi-band accel. factor	1

**BOLD**

GLM Statistics	False
Dynamic t-maps	Off
Ignore meas. at start	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	20
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Active
Meas[8]	Active
Meas[9]	Active
Meas[10]	Active
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

**BOLD**

Measurements	6
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.54 ms
Bandwidth	2084 Hz/Px

**Sequence - Part 2**

EPI factor	80
RF pulse type	Normal
Gradient mode	Performance
Excitation	Standard

**Sequence - Special**

SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
Force equal slice timing	Off
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

\\BIC\_FUNCTIONAL\Functional\Dr.Bernhardt\MICA-MTL\_Template\_new\_29May2018\rsmri-3mm\_se\_PA

TA: 0:28 PM: FIX Voxel size: 3.0×3.0×3.0 mmPAT: Off Rel. SNR: 1.00 : epse

### Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

### Routine

Slice group	1
Slices	48
Dist. factor	0 %
Position	R2.4 A8.0 H3.3 mm
Orientation	T > C-35.0
Phase enc. dir.	P >> A
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	240 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	4029 ms
TE	48.00 ms
Multi-band accel. factor	1
Filter	Prescan Normalize
Coil elements	HC1-7

### Contrast - Common

TR	4029 ms
TE	48.00 ms
MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Enabled

### Contrast - Dynamic

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	6
Delay in TR	0 ms
Multiple series	Off

### Resolution - Common

FoV read	240 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
Base resolution	80
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

### Resolution - iPAT

PAT mode	None
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### Resolution - Filter Image

Distortion Corr.	Off
Prescan Normalize	On
Unfiltered images	Off

### Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off
Hamming	Off

### Geometry - Common

Slice group	1
Slices	48
Dist. factor	0 %
Position	R2.4 A8.0 H3.3 mm
Orientation	T > C-35.0
Phase enc. dir.	P >> A
FoV read	240 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	4029 ms
Multi-slice mode	Interleaved
Series	Descending
Multi-band accel. factor	1

### Geometry - AutoAlign

Slice group	1
Position	R2.4 A8.0 H3.3 mm
Orientation	T > C-35.0
Phase enc. dir.	P >> A
AutoAlign	Head > Brain
Initial Position	R0.3 P4.3 H6.5
R	0.3 mm
P	4.3 mm
H	6.5 mm
Initial Rotation	-178.84 deg
Initial Orientation	T > C
T > C	-32.1
> S	-2.5

### Geometry - Saturation

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Enabled
Special sat.	None

### System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

### System - Adjustments

B0 Shim mode	Standard
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**System - Adjustments**

B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

! Position	R2.4 A8.0 H3.3 mm
! Orientation	T > C-35.0
! Rotation	0.00 deg
! A >> P	240 mm
! R >> L	240 mm
! F >> H	144 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Standard

**System - Tx/Rx**

Frequency 1H	123.250064 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	4029 ms
Multi-band accel. factor	1

**BOLD**

GLM Statistics	False
Dynamic t-maps	Off
Ignore meas. at start	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	20
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Active
Meas[8]	Active
Meas[9]	Active
Meas[10]	Active
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

**BOLD**

Measurements	6
Delay in TR	0 ms
Multiple series	Off

**Sequence - Part 1**

Introduction	Off
Contrasts	1
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.54 ms
Bandwidth	2084 Hz/Px

**Sequence - Part 2**

EPI factor	80
RF pulse type	Normal
Gradient mode	Performance
Excitation	Standard

**Sequence - Special**

SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
Force equal slice timing	Off
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard



\\BIC\_FUNCTIONAL\Functional\Dr.Bernhardt\MICA-MTL\_Template\_new\_29May2018\mprage-0.8iso

TA: 6:44 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 2 Rel. SNR: 1.00 : tfl

**Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	On
Start measurements	Single measurement

**Routine**

Slab group	1
Slabs	1
Dist. factor	50 %
Position	R1.7 A32.0 H0.0 mm
Orientation	S > C-2.4 > T-1.4
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	224
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.80 mm
TR	2300.0 ms
TE	3.14 ms
Averages	1
Concatenations	1
Filter	Raw filter, Prescan Normalize, Image Filter
Coil elements	HC1-7

**Contrast - Common**

TR	2300.0 ms
TE	3.14 ms
Magn. preparation	Non-sel. IR
TI	900 ms
Flip angle	9 deg
Fat suppr.	None
Water suppr.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

**Resolution - Common**

FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.80 mm
Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off

**Resolution - Common**

Interpolation	Off
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**Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Accel. factor 3D	1
Reference scan mode	Integrated

**Resolution - Filter Image**

Image Filter	On
Intensity	Medium
Edge Enhancement	3
Smoothing	3
Unfiltered images	On
Distortion Corr.	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

**Resolution - Filter Rawdata**

Raw filter	On
Elliptical filter	Off

**Geometry - Common**

Slab group	1
Slabs	1
Dist. factor	50 %
Position	R1.7 A32.0 H0.0 mm
Orientation	S > C-2.4 > T-1.4
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	224
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.80 mm
TR	2300.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

**Geometry - AutoAlign**

Slab group	1
Position	R1.7 A32.0 H0.0 mm
Orientation	S > C-2.4 > T-1.4
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Initial Position	R0.6 A0.8 H32.6
R	0.6 mm
A	0.8 mm
H	32.6 mm
Initial Rotation	0.03 deg
Initial Orientation	Sagittal

**Geometry - Navigator****System - Miscellaneous**

Positioning mode	FIX
Table position	H

**System - Miscellaneous**

Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	Head > Basis
Coil Select Mode	Default

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	R1.7 A32.0 H0.0 mm
Orientation	S > C-2.4 > T-1.4
Rotation	-5.49 deg
A >> P	256 mm
F >> H	256 mm
R >> L	180 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Non-sel.

**System - Tx/Rx**

Frequency 1H	123.250064 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	2300.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	Non-sel. IR
TI	900 ms
Fat suppr.	None
Dark blood	Off
FoV read	256 mm
FoV phase	100.0 %
Phase resolution	100 %

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off

**Inline - Common**

Save original images	On
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**Inline - MIP**

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

**Inline - Composing**

Distortion Corr.	Off
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**Inline - MapIt**

Save original images	On
MapIt	None
Flip angle	9 deg
Measurements	1
TR	2300.0 ms
TE	3.14 ms

**Sequence - Part 1**

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Off
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	7.7 ms
Bandwidth	240 Hz/Px

**Sequence - Part 2**

RF pulse type	Fast
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	224

**Sequence - Assistant**

Mode	Off
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\\BIC\_FUNCTIONAL\Functional\Dr.Bernhardt\MICA-MTL\_Template\_new\_29May2018\mp2rage-0.8iso-  
sess2

TA: 8:27 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 3 Rel. SNR: 1.00 : tfl

### Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

### Routine

Slab group	1
Slabs	1
Dist. factor	50 %
Position	R1.7 A32.0 H0.0 mm
Orientation	S > C-2.4 > T-1.4
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	240
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.80 mm
TR	5000.0 ms
TE	2.9 ms
Averages	1
Concatenations	1
Filter	Prescan Normalize
Coil elements	HC1-7

### Contrast - Common

TR	5000.0 ms
TE	2.9 ms
Magn. preparation	Non-sel. IR
TI 1	940 ms
TI 2	2830 ms
Flip angle 1	4 deg
Flip angle 2	5 deg
Fat suppr.	None
Water suppr.	None

### Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

### Resolution - Common

FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.80 mm
Base resolution	320
Phase resolution	100 %
Slice resolution	100 %

### Resolution - Common

Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off

### Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	32
Accel. factor 3D	1
Reference scan mode	Integrated

### Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

### Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

### Geometry - Common

Slab group	1
Slabs	1
Dist. factor	50 %
Position	R1.7 A32.0 H0.0 mm
Orientation	S > C-2.4 > T-1.4
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	240
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.80 mm
TR	5000.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

### Geometry - AutoAlign

Slab group	1
Position	R1.7 A32.0 H0.0 mm
Orientation	S > C-2.4 > T-1.4
Phase enc. dir.	A >> P
AutoAlign	Head > Basis
Initial Position	R0.6 A0.8 H32.6
R	0.6 mm
A	0.8 mm
H	32.6 mm
Initial Rotation	0.03 deg
Initial Orientation	Sagittal

### Geometry - Navigator

### System - Miscellaneous

Positioning mode	FIX
Table position	H

**System - Miscellaneous**

Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	Head > Basis
Coil Select Mode	Off - AutoCoilSelect

**System - Adjustments**

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**System - Adjust Volume**

Position	R1.7 A32.0 H0.0 mm
Orientation	S > C-2.4 > T-1.4
Rotation	-5.49 deg
A >> P	256 mm
F >> H	256 mm
R >> L	192 mm
Reset	Off

**System - pTx Volumes**

B1 Shim mode	TrueForm
Excitation	Non-sel.

**System - Tx/Rx**

Frequency 1H	123.250064 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

**Physio - Signal1**

1st Signal/Mode	None
TR	5000.0 ms
Concatenations	1

**Physio - Cardiac**

Magn. preparation	Non-sel. IR
TI 1	940 ms
TI 2	2830 ms
Fat suppr.	None
Dark blood	Off
FoV read	256 mm
FoV phase	100.0 %
Phase resolution	100 %

**Physio - PACE**

Resp. control	Off
Concatenations	1

**Inline - Common**

Subtract	Off
Measurements	1

**Inline - Common**

StdDev	Off
Save original images	On

**Inline - MIP**

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

**Inline - Composing**

Distortion Corr.	Off
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**Inline - MapIt**

Save original images	On
MapIt	T1 map
Flip angle 1	4 deg
Flip angle 2	5 deg
Measurements	1
TR	5000.0 ms
TE	2.9 ms

**Sequence - Part 1**

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Off
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	7.2 ms
Bandwidth	270 Hz/Px

**Sequence - Part 2**

RF pulse type	Fast
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	240

**Sequence - Assistant**

Mode	Off
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