Table of contents

\\RESEARCH\UGent Nefrologie\Renal functional MRI\PARENCHIMA consensus renal fmri 07feb2020 \localizer_tfi_bh *

TA: 5.0 s PM: ISO Voxel size: 1.0×1.0×8.0 mmPAT: Off Rel. SNR: 1.00 : tfi

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	On
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	3
Dist. factor	500 %
Position	L1.9 P0.0 H7.7 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	2
Slices	2
Dist. factor	250 %
Position	L0.0 P32.9 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	3
Slices	1
Dist. factor	20 %
Position	R70.0 A2.9 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	4
Slices	1
Dist. factor	20 %
Position	L70.0 A1.9 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	400 mm
FoV phase	100.0 %
Slice thickness	8.0 mm
TR	498.73 ms
TE	1.05 ms
Averages	1
Concatenations	7
Filter	Distortion Corr.(2D), Prescan Normalize
Coil elements	BO1-3;SP4-7

Contrast - Common

TR	498.73 ms
TE	1.05 ms
TD	0 ms
Magn. preparation	None
Flip angle	38 deg
Fat suppr.	None
Wrap-up Magn.	None

Contrast - Dynamic

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

Resolution - Common

FoV read	400 mm
FoV phase	100.0 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Trajectory	Cartesian
Interpolation	On

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off
POCS	Off

Geometry - Common

Slice group	1
Slices	3
Dist. factor	500 %
Position	L1.9 P0.0 H7.7 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	2
Slices	2
Dist. factor	250 %
Position	L0.0 P32.9 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	3
Slices	1
Dist. factor	20 %
Position	R70.0 A2.9 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	4
Slices	1
Dist. factor	20 %
Position	L70.0 A1.9 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P

Geometry - Common

FoV read	400 mm
FoV phase	100.0 %
Slice thickness	8.0 mm
TR	498.73 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	7

Geometry - AutoAlign

Slice group	1
Position	L1.9 P0.0 H7.7 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	2
Position	L0.0 P32.9 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	3
Position	R70.0 A2.9 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	4
Position	L70.0 A1.9 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L1.9 P0.0 H7.7
L	1.9 mm
P	0.0 mm
H	7.7 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

Fat suppr.	None
Wrap-up Magn.	None
Special sat.	None

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	ISO
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm

System - Adjustments

Adjust with body coil	On
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	L1.0 A1.5 H0.0 mm
Orientation	Transversal
Rotation	90.00 deg
R >> L	402 mm
A >> P	403 mm
F >> H	400 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slice-sel.

System - Tx/Rx

Frequency 1H	123.259348 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	498.73 ms
Concatenations	7
Segments	192

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	400 mm
FoV phase	100.0 %
Phase resolution	100 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0

Physio - PACE

Resp. control	Off
Concatenations	7

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

Inline - Cardiac

Inline Evaluation	Off
Magn. preparation	None
Contrasts	1
TE	1.05 ms
TR	498.73 ms
Save original images	On

Inline - MIP

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

Inline - Composing

Inline Composing	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off

Sequence - Part 1

Introduction	On
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE TR
Multi-slice mode	Sequential
Echo spacing	2.5 ms
Sequence type	Trufi
Bandwidth	1132 Hz/Px

Sequence - Part 2

Define	Shots
Shots per slice	1
Segments	192
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
Cine	Off

Sequence - Assistant

Mode	Min flip angle
Min flip angle	35 deg
Allowed delay	0 s

\\RESEARCH\UGent Nefrologie\Renal functional MRI\PARENCHIMA consensus renal fmri 07feb2020 \t1_vibe_fs_cor_p4_bh_320 *

TA: 0:19 PM: ISO Voxel size: 1.2×1.2×3.0 mmPAT: 4 Rel. SNR: 1.00 : fl

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	20 %
Position	L8.0 P4.8 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	30 %
Slice oversampling	44.4 %
Slices per slab	72
FoV read	380 mm
FoV phase	81.3 %
Slice thickness	3.0 mm
TR	3.55 ms
TE	1.3 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D), Prescan Normalize
Coil elements	BO1-3;SP4-7

Contrast - Common

TR	3.55 ms
TE	1.3 ms
Flip angle	9.0 deg
Fat suppr.	SPAIR
Lines Per Shot	47
Water suppr.	None
Dixon	Off
Dixon evaluation	Off

Contrast - Dynamic

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

Resolution - Common

FoV read	380 mm
FoV phase	81.3 %
Slice thickness	3.0 mm
Base resolution	320
Phase resolution	75 %
Slice resolution	50 %

Resolution - Common

Phase partial Fourier	Off
Slice partial Fourier	7/8
Trajectory	Cartesian
View sharing	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	2
Ref. lines 3D	24
Reordering Shift 3D	1
Reference scan mode	GRE/separate
CAIPIRINHA mode	Body Tra
Total PAT factor	4

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off
POCS	Off

Geometry - Common

Slab group	1
Slabs	1
Dist. factor	20 %
Position	L8.0 P4.8 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
Slice oversampling	44.4 %
Slices per slab	72
FoV read	380 mm
FoV phase	81.3 %
Slice thickness	3.0 mm
TR	3.55 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	L8.0 P4.8 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L8.0 P4.8 H0.0
L	8.0 mm
P	4.8 mm
H	0.0 mm

Geometry - AutoAlign

Initial Rotation	0.00 deg
Initial Orientation	Coronal

Geometry - Saturation

Fat suppr.	SPAIR
Water suppr.	None
Dixon	Off
Dixon evaluation	Off
Special sat.	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	ISO
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
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	L8.0 P4.8 H0.0 mm
Orientation	Coronal
Rotation	0.00 deg
R >> L	309 mm
F >> H	380 mm
A >> P	216 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.259348 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - PACE

Resp. control	Breath-hold

Physio - PACE

Concatenations	1

Inline - Common

View sharing	Off
Flip angle	9.0 deg
Measurements	1
Burn time-to-center	Off
Temporal interpolation	1
3D centric reordering	Off
Time to center	10.4 s

Inline - Inline

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save original images	On

Inline - MIP

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

Inline - Soft Tissue

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	1

Inline - Composing

Inline Composing	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off

Sequence - Part 1

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE
Multi-slice mode	Sequential
Bandwidth	450 Hz/Px

Sequence - Part 2

RF pulse type	Fast
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Incr. Gradient spoiling	On

Sequence - Assistant

Mode	Off
Allowed delay	60 s

\\RESEARCH\UGent Nefrologie\Renal functional MRI\PARENCHIMA consensus renal fmri 07feb2020 \t2_haste_cor_p3_mbh *

TA: 0:49 PM: ISO Voxel size: 1.6×1.6×4.0 mmPAT: 3 Rel. SNR: 1.00 : h

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	On
Auto close inline display	On
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	30
Dist. factor	20 %
Position	L7.2 P18.0 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	50 %
FoV read	400 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	1400.0 ms
TE	92 ms
Averages	1
Concatenations	2
Filter	Distortion Corr.(2D), Prescan Normalize
Coil elements	BO1-3;SP4-7

Contrast - Common

TR	1400.0 ms
TE	92 ms
MTC	Off
Magn. preparation	None
Flip angle	160 deg
Fat suppr.	None
Water suppr.	None
Restore magn.	Off

Contrast - Dynamic

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

Resolution - Common

FoV read	400 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
Base resolution	256
Phase resolution	100 %
Phase partial Fourier	4/8
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	42
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	30
Dist. factor	20 %
Position	L7.2 P18.0 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	400 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	1400.0 ms
Multi-slice mode	Single shot
Series	Interl. in B.-h.
Concatenations	2

Geometry - AutoAlign

Slice group	1
Position	L7.2 P18.0 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L7.2 P18.0 H0.0
L	7.2 mm
P	18.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Coronal

Geometry - Saturation

Fat suppr.	None
Water suppr.	None
Restore magn.	Off
Special sat.	None

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H

Geometry - Tim Planning Suite

Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	ISO
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Tune up
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	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm

System - Tx/Rx

Frequency 1H	123.259348 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	1400.0 ms
Concatenations	2

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	400 mm
FoV phase	100.0 %
Phase resolution	100 %

Physio - PACE

Resp. control	Breath-hold
Concatenations	2

Inline - Common

Subtract	Off
Measurements	1
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

Inline Composing	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off

Sequence - Part 1

Introduction	Off
Dimension	2D
Contrasts	1
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	4.2 ms
Bandwidth	698 Hz/Px

Sequence - Part 2

RF pulse type	Fast
Gradient mode	Fast
Hyperecho	Off
Turbo factor	256

Sequence - Assistant

Mode	Min flip angle
Min flip angle	140 deg
Allowed delay	30 s

\\RESEARCH\UGent Nefrologie\Renal functional MRI\PARENCHIMA consensus renal fmri 07feb2020 \t2_haste_tra_p2_mbh_320 *

TA: 1:10 PM: ISO Voxel size: 1.2×1.2×5.0 mmPAT: 2 Rel. SNR: 1.00 : h

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	On
Auto close inline display	On
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	35
Dist. factor	20 %
Position	L1.0 P0.0 H5.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	380 mm
FoV phase	78.1 %
Slice thickness	5.0 mm
TR	1600.0 ms
TE	83 ms
Averages	1
Concatenations	3
Filter	Distortion Corr.(2D), Prescan Normalize
Coil elements	BO1-3;SP5,6

Contrast - Common

TR	1600.0 ms
TE	83 ms
MTC	Off
Magn. preparation	None
Flip angle	160 deg
Fat suppr.	None
Water suppr.	None
Restore magn.	Off

Contrast - Dynamic

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

Resolution - Common

FoV read	380 mm
FoV phase	78.1 %
Slice thickness	5.0 mm
Base resolution	320
Phase resolution	81 %
Phase partial Fourier	5/8
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	42
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	35
Dist. factor	20 %
Position	L1.0 P0.0 H5.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	380 mm
FoV phase	78.1 %
Slice thickness	5.0 mm
TR	1600.0 ms
Multi-slice mode	Single shot
Series	Interl. in B.-h.
Concatenations	3

Geometry - AutoAlign

Slice group	1
Position	L1.0 P0.0 H5.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L1.0 P0.0 H5.8
L	1.0 mm
P	0.0 mm
H	5.8 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

Fat suppr.	None
Water suppr.	None
Restore magn.	Off
Special sat.	Parallel F/H
Gap	10 mm
Thickness	60 mm

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	6 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	ISO
Table position	H
Table position	6 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Tune up
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	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm

System - Tx/Rx

Frequency 1H	123.259348 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	1600.0 ms
Concatenations	3

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	380 mm
FoV phase	78.1 %
Phase resolution	81 %

Physio - PACE

Resp. control	Breath-hold
Concatenations	3

Inline - Common

Subtract	Off
Measurements	1
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

Inline Composing	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off

Sequence - Part 1

Introduction	Off
Dimension	2D
Contrasts	1
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	3.94 ms
Bandwidth	710 Hz/Px

Sequence - Part 2

RF pulse type	Fast
Gradient mode	Fast
Hyperecho	Off
Turbo factor	203

Sequence - Assistant

Mode	Min flip angle
Min flip angle	140 deg
Allowed delay	30 s

\\RESEARCH\UGent Nefrologie\Renal functional MRI\PARENCHIMA consensus renal fmri 07feb2020 \bold_gre_12_echos_consensus *

TA: 0:20 PM: REF Voxel size: 2.5×2.5×4.0 mmPAT: 2 Rel. SNR: 1.00 : fl

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	4
Dist. factor	20 %
Position	L10.8 P30.9 H2.9 mm
Orientation	C > T3.9
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
FoV read	400 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	70.0 ms
TE 1	4.20 ms
TE 2	8.40 ms
TE 3	12.60 ms
TE 4	16.80 ms
TE 5	21.00 ms
TE 6	25.20 ms
TE 7	29.40 ms
TE 8	33.60 ms
TE 9	37.80 ms
TE 10	42.00 ms
TE 11	46.20 ms
TE 12	50.40 ms
Averages	1
Concatenations	4
Filter	Distortion Corr.(2D), Prescan Normalize
Coil elements	BO1-3;SP4-7

Contrast - Common

TR	70.0 ms
TE 1	4.20 ms
TE 2	8.40 ms
TE 3	12.60 ms
TE 4	16.80 ms
TE 5	21.00 ms
TE 6	25.20 ms
TE 7	29.40 ms
TE 8	33.60 ms
TE 9	37.80 ms
TE 10	42.00 ms
TE 11	46.20 ms
TE 12	50.40 ms
TD	0 ms
MTC	Off

Contrast - Common

Magn. preparation	None
Flip angle	30 deg
Fat suppr.	Fat sat.
Water suppr.	None
SWI	Off

Contrast - Dynamic

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

Resolution - Common

FoV read	400 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
Base resolution	160
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	On
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	4
Dist. factor	20 %
Position	L10.8 P30.9 H2.9 mm
Orientation	C > T3.9
Phase enc. dir.	R >> L
FoV read	400 mm
FoV phase	100.0 %
Slice thickness	4.0 mm
TR	70.0 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	4

Geometry - AutoAlign

Slice group	1
Position	L10.8 P30.9 H2.9 mm
Orientation	C > T3.9
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L10.8 P30.9 H2.9
L	10.8 mm
P	30.9 mm
H	2.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	3.9
> S	0.0

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	Fat sat.
Water suppr.	None
Special sat.	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
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	R2.2 P31.0 H7.4 mm
! Orientation	C > T4.4
! Rotation	0.00 deg
! R >> L	248 mm
! F >> H	171 mm
! A >> P	19 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slice-sel.

System - Tx/Rx

Frequency 1H	123.259348 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	70.0 ms
Concatenations	4
Segments	1

Physio - Cardiac

Magn. preparation	None
Fat suppr.	Fat sat.
Dark blood	Off
FoV read	400 mm
FoV phase	100.0 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	4

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save original images	On

Inline - MIP

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

Inline - Soft Tissue

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	1

Inline - Composing

Inline Composing	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	On

Sequence - Part 1

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	12
Flow comp. 1	No
Readout mode	Monopolar
Multi-slice mode	Sequential
Bandwidth 1	300 Hz/Px

Sequence - Part 1

Bandwidth 2	300 Hz/Px
Bandwidth 3	300 Hz/Px
Bandwidth 4	300 Hz/Px
Bandwidth 5	300 Hz/Px
Bandwidth 6	300 Hz/Px
Bandwidth 7	300 Hz/Px
Bandwidth 8	300 Hz/Px
Bandwidth 9	300 Hz/Px
Bandwidth 10	300 Hz/Px
Bandwidth 11	300 Hz/Px
Bandwidth 12	300 Hz/Px

Sequence - Part 2

Segments	1
Acoustic noise reduction	None
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On

Sequence - Assistant

Mode	Off
Allowed delay	60 s

\\RESEARCH\UGent Nefrologie\Renal functional MRI\PARENCHIMA consensus renal fmri 07feb2020 \haste_localizer_tra *

TA: 0:13 PM: ISO Voxel size: 1.6×1.6×6.0 mmPAT: 2 Rel. SNR: 1.00 : h

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	On
Auto close inline display	On
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	11
Dist. factor	150 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	30 %
FoV read	400 mm
FoV phase	100.0 %
Slice thickness	6.0 mm
TR	1200.0 ms
TE	84 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D), Prescan Normalize, Elliptical filter
Coil elements	BO1,2;SP1-3

Contrast - Common

TR	1200.0 ms
TE	84 ms
MTC	Off
Magn. preparation	None
Flip angle	150 deg
Fat suppr.	None
Water suppr.	None
Restore magn.	Off

Contrast - Dynamic

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

Resolution - Common

FoV read	400 mm
FoV phase	100.0 %
Slice thickness	6.0 mm
Base resolution	256
Phase resolution	70 %
Phase partial Fourier	5/8
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	On

Geometry - Common

Slice group	1
Slices	11
Dist. factor	150 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	400 mm
FoV phase	100.0 %
Slice thickness	6.0 mm
TR	1200.0 ms
Multi-slice mode	Single shot
Series	Descending
Concatenations	1

Geometry - AutoAlign

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

Geometry - Saturation

Fat suppr.	None
Water suppr.	None
Restore magn.	Off
Special sat.	None

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H

Geometry - Tim Planning Suite

Table position	50 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	ISO
Table position	H
Table position	50 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Tune up
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	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm

System - Tx/Rx

Frequency 1H	123.259348 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	1200.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	400 mm
FoV phase	100.0 %
Phase resolution	70 %

Physio - PACE

Resp. control	Breath-hold
Concatenations	1

Inline - Common

Subtract	Off
Measurements	1
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

Inline Composing	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off

Sequence - Part 1

Introduction	Off
Dimension	2D
Contrasts	1
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	5.28 ms
Bandwidth	698 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Fast
Hyperecho	Off
Turbo factor	179

Sequence - Assistant

Mode	Off
Allowed delay	30 s

\\RESEARCH\UGent Nefrologie\Renal functional MRI\PARENCHIMA consensus renal fmri 07feb2020 \haste_localizer_cor *

TA: 0:13 PM: ISO Voxel size: 1.6×1.6×6.0 mmPAT: 2 Rel. SNR: 1.00 : h

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	On
Auto close inline display	On
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	11
Dist. factor	150 %
Position	L1.0 A4.9 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	30 %
FoV read	400 mm
FoV phase	100.0 %
Slice thickness	6.0 mm
TR	1200.0 ms
TE	84 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D), Prescan Normalize, Elliptical filter
Coil elements	BO1-3;SP4-7

Contrast - Common

TR	1200.0 ms
TE	84 ms
MTC	Off
Magn. preparation	None
Flip angle	150 deg
Fat suppr.	None
Water suppr.	None
Restore magn.	Off

Contrast - Dynamic

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

Resolution - Common

FoV read	400 mm
FoV phase	100.0 %
Slice thickness	6.0 mm
Base resolution	256
Phase resolution	70 %
Phase partial Fourier	5/8
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	On

Geometry - Common

Slice group	1
Slices	11
Dist. factor	150 %
Position	L1.0 A4.9 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	400 mm
FoV phase	100.0 %
Slice thickness	6.0 mm
TR	1200.0 ms
Multi-slice mode	Single shot
Series	Descending
Concatenations	1

Geometry - AutoAlign

Slice group	1
Position	L1.0 A4.9 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L1.0 A4.9 H0.0
L	1.0 mm
A	4.9 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Coronal

Geometry - Saturation

Fat suppr.	None
Water suppr.	None
Restore magn.	Off
Special sat.	None

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H

Geometry - Tim Planning Suite

Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	ISO
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Tune up
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	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm

System - Tx/Rx

Frequency 1H	123.259348 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	1200.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	400 mm
FoV phase	100.0 %
Phase resolution	70 %

Physio - PACE

Resp. control	Breath-hold
Concatenations	1

Inline - Common

Subtract	Off
Measurements	1
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

Inline Composing	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off

Sequence - Part 1

Introduction	Off
Dimension	2D
Contrasts	1
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	5.28 ms
Bandwidth	698 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Fast
Hyperecho	Off
Turbo factor	179

Sequence - Assistant

Mode	Off
Allowed delay	30 s

\\RESEARCH\UGent Nefrologie\Renal functional MRI\PARENCHIMA consensus renal fmri 07feb2020 \tfi2d_sag *

TA: 0:17 PM: ISO Voxel size: 2.0×2.0×8.0 mmPAT: Off Rel. SNR: 1.00 : tfi

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	On
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	21
Dist. factor	40 %
Position	L11.4 P1.9 H8.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	380 mm
FoV phase	80.2 %
Slice thickness	8.0 mm
TR	802.07 ms
TE	1.05 ms
Averages	1
Concatenations	21
Filter	Distortion Corr.(2D), Prescan Normalize
Coil elements	BO1-3;SP4-7

Contrast - Common

TR	802.07 ms
TE	1.05 ms
TD	0 ms
Magn. preparation	None
Flip angle	40 deg
Fat suppr.	None
Wrap-up Magn.	Restore

Contrast - Dynamic

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

Resolution - Common

FoV read	380 mm
FoV phase	80.2 %
Slice thickness	8.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Trajectory	Cartesian
Interpolation	Off

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	On
Unfiltered images	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off
POCS	Off

Geometry - Common

Slice group	1
Slices	21
Dist. factor	40 %
Position	L11.4 P1.9 H8.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	380 mm
FoV phase	80.2 %
Slice thickness	8.0 mm
TR	802.07 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	21

Geometry - AutoAlign

Slice group	1
Position	L11.4 P1.9 H8.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L11.4 P1.9 H8.7
L	11.4 mm
P	1.9 mm
H	8.7 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Saturation

Fat suppr.	None
Wrap-up Magn.	Restore
Special sat.	None

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	9 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	ISO
Table position	H
Table position	9 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
Coil Focus	Flat
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

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

System - Adjust Volume

Position	L11.4 P1.9 H8.7 mm
Orientation	Sagittal
Rotation	0.00 deg
A >> P	305 mm
F >> H	380 mm
R >> L	232 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slice-sel.

System - Tx/Rx

Frequency 1H	123.259348 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	802.07 ms
Concatenations	21
Segments	154

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	380 mm
FoV phase	80.2 %
Phase resolution	100 %
Cine	Off
Trajectory	Cartesian
Dummy heartbeats	0

Physio - PACE

Resp. control	Off

Physio - PACE

Concatenations	21

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

Inline - Cardiac

Inline Evaluation	Off
Magn. preparation	None
Contrasts	1
TE	1.05 ms
TR	802.07 ms
Save original images	On

Inline - MIP

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

Inline - Composing

Inline Composing	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off

Sequence - Part 1

Introduction	Off
Dimension	2D
Reordering	Linear
Asymmetric echo	Weak
Contrasts	1
Optimization	Min. TE
Multi-slice mode	Sequential
Echo spacing	2.5 ms
Sequence type	Trufi
Bandwidth	1132 Hz/Px

Sequence - Part 2

Define	Shots
Shots per slice	1
Segments	154
Trufi delta freq.	0 Hz
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
Flip angle mode	Constant
Cine	Off

Sequence - Assistant

Mode	Off
Allowed delay	0 s

\\RESEARCH\UGent Nefrologie\Renal functional MRI\PARENCHIMA consensus renal fmri 07feb2020 \tgse_pCASL_consensus *

TA: 5:05 PM: ISO Voxel size: 4.7×4.7×5.0 mmRel. SNR: 1.00 : tgse

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	L9.6 P61.5 H16.4 mm
Orientation	C > T9.0
Phase enc. dir.	F >> H
AutoAlign	---
Phase oversampling	0 %
Slices per slab	16
FoV read	300 mm
FoV phase	50.0 %
Slice thickness	5.00 mm
TR	5000 ms
TE	19.28 ms
Averages	1
Concatenations	1
Filter	Raw filter, Distortion Corr.(2D)
Coil elements	BO1-3;SP5,6

Contrast - Common

TR	5000 ms
TE	19.28 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Weak

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	30
Delay in TR	0 ms
Multiple series	Off

Resolution - Common

FoV read	300 mm
FoV phase	50.0 %
Slice thickness	5.00 mm
Base resolution	64
Phase resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

Resolution - Filter Image

Distortion Corr.	On
Mode	2D
Prescan Normalize	Off

Resolution - Filter Rawdata

Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry - Common

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L9.6 P61.5 H16.4 mm
Orientation	C > T9.0
Phase enc. dir.	F >> H
Slices per slab	16
FoV read	300 mm
FoV phase	50.0 %
Slice thickness	5.00 mm
TR	5000 ms
Multi-slice mode	Interleaved
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	L9.6 P61.5 H16.4 mm
Orientation	C > T9.0
Phase enc. dir.	F >> H
AutoAlign	---
Initial Position	L9.6 P61.5 H16.4
L	9.6 mm
P	61.5 mm
H	16.4 mm
Initial Rotation	90.00 deg
Initial Orientation	C > T
C > T	9.0
> S	0.0

Geometry - Saturation

Sat. region	1
Thickness	10 mm
Position	L0.0 P0.0 H148.0 mm
Orientation	Transversal
Sat. region	2
Thickness	176 mm
Position	L0.0 P0.0 H15.1 mm
Orientation	Transversal
Sat. region	3
Thickness	111 mm
Position	R0.6 P0.0 H212.4 mm
Orientation	T > S0.2
Fat sat. mode	Weak
Special sat.	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H

Geometry - Tim Planning Suite

Table position	16 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	ISO
Table position	H
Table position	16 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat
AutoAlign	---
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	L9.6 P61.5 H16.4 mm
Orientation	C > T9.0
Rotation	90.00 deg
F >> H	150 mm
R >> L	300 mm
A >> P	80 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm

System - Tx/Rx

Frequency 1H	123.259348 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 ms
Concatenations	1
Segments	1

Sequence - Part 1

Introduction	Off
Dimension	3D
Reordering	Centric
Multi-slice mode	Interleaved
Echo spacing	0.37 ms
Bandwidth	3552 Hz/Px

Sequence - Part 2

EPI factor	32
Segments	1

Sequence - Part 2

RF pulse type	Low SAR
Gradient mode	Fast
Turbo factor	16

Sequence - Special

Perfusion mode	pCASL
Start TI	3000 ms
Number of TI	1 #
PCASL duration	1400 ms
PCASL flip angle	28.0 deg
Pre sat scale	1.5
Spoiler duration	5000 us
No of sats	7
Mean Gz	0.50 mT/m
T1 Blood	1650.0 ms
RBF filter	Off
Motion correction	On
Save original	Off

\\RESEARCH\UGent Nefrologie\Renal functional MRI\PARENCHIMA consensus renal fmri 07feb2020 \ep2d_DWI_cor_consensus *

TA: 2:22 PM: FIX Voxel size: 2.2×2.2×6.0 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	25
Dist. factor	0 %
Position	L10.7 P19.4 H14.7 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	420 mm
FoV phase	96.9 %
Slice thickness	6.0 mm
TR	4000 ms
TE	61.0 ms
Concatenations	1
Filter	Raw filter, Dynamic Field Corr., Distortion Corr.(2D), Prescan Normalize
Coil elements	BO1-3;SP4-7

Contrast - Common

TR	4000 ms
TE	61.0 ms
MTC	Off
Magn. preparation	None
Fat suppr.	SPAIR
Fat sat. mode	Strong

Contrast - Dynamic

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

Resolution - Common

FoV read	420 mm
FoV phase	96.9 %
Slice thickness	6.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

Resolution - iPAT

Accel. mode	Slice accel.

Resolution - iPAT

Accel. factor PE	2
Ref. lines PE	58
Accel. factor slice	1
Reference scan mode	EPI/separate

Resolution - Filter Image

Distortion Corr.	On
Mode	2D
Prescan Normalize	On
Dynamic Field Corr.	On
Unfiltered images	Off

Resolution - Filter Rawdata

Raw filter	On
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	25
Dist. factor	0 %
Position	L10.7 P19.4 H14.7 mm
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	420 mm
FoV phase	96.9 %
Slice thickness	6.0 mm
TR	4000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice group	1
Position	L10.7 P19.4 H14.7 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L10.7 P19.4 H14.7
L	10.7 mm
P	19.4 mm
H	14.7 mm
Initial Rotation	0.00 deg
Initial Orientation	Coronal

Geometry - Saturation

Fat suppr.	SPAIR
Fat sat. mode	Strong
Special sat.	None

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

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
Coil Focus	Flat
AutoAlign	Head > Brain
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	L10.7 P19.4 H14.7 mm
Orientation	Coronal
Rotation	0.00 deg
R >> L	407 mm
F >> H	420 mm
A >> P	150 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.259348 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	4000 ms
Concatenations	1

Physio - PACE

Resp. control	Off
Concatenations	1

Diff - Neuro

Diffusion mode	Orthogonal
Diff. directions	3
Diffusion Scheme	Monopolar
Diff. weightings	4
b-value 1	0 s/mm²
b-value 2	100 s/mm²
b-value 3	200 s/mm²
b-value 4	800 s/mm²
b-value 1	3
b-value 2	3

Diff - Neuro

b-value 3	3
b-value 4	3
Diff. weighted images	On
Trace weighted images	On
ADC maps	On
FA maps	Off
Mosaic	Off
Tensor	Off
Noise level	10

Diff - Body

Diffusion mode	Orthogonal
Diff. directions	3
Diffusion Scheme	Monopolar
Diff. weightings	4
b-value 1	0 s/mm²
b-value 2	100 s/mm²
b-value 3	200 s/mm²
b-value 4	800 s/mm²
b-value 1	3
b-value 2	3
b-value 3	3
b-value 4	3
Diff. weighted images	On
Trace weighted images	On
ADC maps	On
Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm²
Noise level	10

Diff - Composing

Inline Composing	Off
Distortion Corr.	On
Mode	2D

Sequence - Part 1

Introduction	On
Optimization	None
Multi-slice mode	Interleaved
Free echo spacing	On
Echo spacing	0.54 ms
Bandwidth	2170 Hz/Px

Sequence - Part 2

EPI factor	186
RF pulse type	Low SAR
Gradient mode	Performance*
Excitation	Standard

Sequence - pTX Pulses

\\RESEARCH\UGent Nefrologie\Renal functional MRI\PARENCHIMA consensus renal fmri 07feb2020 \ep2d_IVIM_cor_consensus *

TA: 4:10 PM: FIX Voxel size: 2.2×2.2×6.0 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	25
Dist. factor	0 %
Position	L7.7 P9.7 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	420 mm
FoV phase	96.9 %
Slice thickness	6.0 mm
TR	4000 ms
TE	61.0 ms
Concatenations	1
Filter	Raw filter, Dynamic Field Corr., Distortion Corr.(2D), Prescan Normalize
Coil elements	BO1-3;SP4-7

Contrast - Common

TR	4000 ms
TE	61.0 ms
MTC	Off
Magn. preparation	None
Fat suppr.	SPAIR
Fat sat. mode	Strong

Contrast - Dynamic

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

Resolution - Common

FoV read	420 mm
FoV phase	96.9 %
Slice thickness	6.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

Resolution - iPAT

Accel. mode	Slice accel.

Resolution - iPAT

Accel. factor PE	2
Ref. lines PE	58
Accel. factor slice	1
Reference scan mode	EPI/separate

Resolution - Filter Image

Distortion Corr.	On
Mode	2D
Prescan Normalize	On
Dynamic Field Corr.	On
Unfiltered images	On

Resolution - Filter Rawdata

Raw filter	On
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	25
Dist. factor	0 %
Position	L7.7 P9.7 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	420 mm
FoV phase	96.9 %
Slice thickness	6.0 mm
TR	4000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice group	1
Position	L7.7 P9.7 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L7.7 P9.7 H0.0
L	7.7 mm
P	9.7 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Coronal

Geometry - Saturation

Fat suppr.	SPAIR
Fat sat. mode	Strong
Special sat.	None

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

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
Coil Focus	Flat
AutoAlign	Head > Brain
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	L7.7 P9.7 H0.0 mm
Orientation	Coronal
Rotation	0.00 deg
R >> L	407 mm
F >> H	420 mm
A >> P	150 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.259348 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	4000 ms
Concatenations	1

Physio - PACE

Resp. control	Off
Concatenations	1

Diff - Neuro

Diffusion mode	Orthogonal
Diff. directions	3
Diffusion Scheme	Monopolar
Diff. weightings	7
b-value 1	0 s/mm²
b-value 2	30 s/mm²
b-value 3	70 s/mm²
b-value 4	100 s/mm²
b-value 5	200 s/mm²
b-value 6	400 s/mm²

Diff - Neuro

b-value 7	800 s/mm²
b-value 1	3
b-value 2	3
b-value 3	3
b-value 4	3
b-value 5	3
b-value 6	3
b-value 7	3
Diff. weighted images	On
Trace weighted images	On
ADC maps	On
FA maps	Off
Mosaic	Off
Tensor	Off
Noise level	10

Diff - Body

Diffusion mode	Orthogonal
Diff. directions	3
Diffusion Scheme	Monopolar
Diff. weightings	7
b-value 1	0 s/mm²
b-value 2	30 s/mm²
b-value 3	70 s/mm²
b-value 4	100 s/mm²
b-value 5	200 s/mm²
b-value 6	400 s/mm²
b-value 7	800 s/mm²
b-value 1	3
b-value 2	3
b-value 3	3
b-value 4	3
b-value 5	3
b-value 6	3
b-value 7	3
Diff. weighted images	On
Trace weighted images	On
ADC maps	On
Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm²
Noise level	10

Diff - Composing

Inline Composing	Off
Distortion Corr.	On
Mode	2D

Sequence - Part 1

Introduction	On
Optimization	None
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.54 ms
Bandwidth	2368 Hz/Px

Sequence - Part 2

EPI factor	186
RF pulse type	Low SAR
Gradient mode	Performance*
Excitation	Standard

Sequence - pTX Pulses