

QA protocol: P2A_C3H_M1

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1 CBCT image data

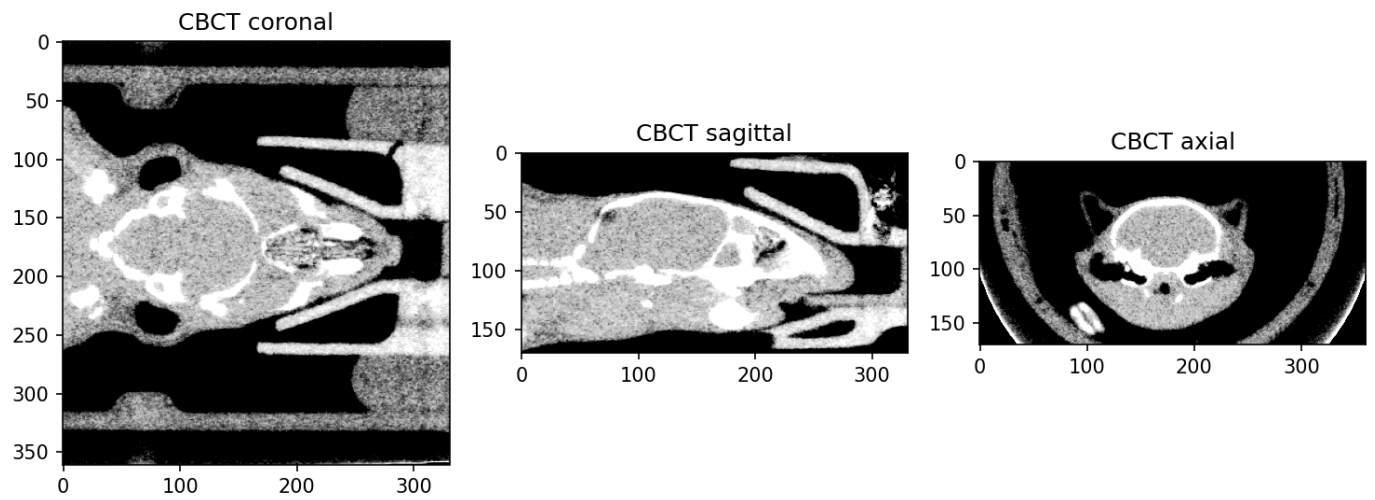


Figure 1.1: Multi-view cutplanes of CBCT serving as anatomical reference

2 Simulation image data

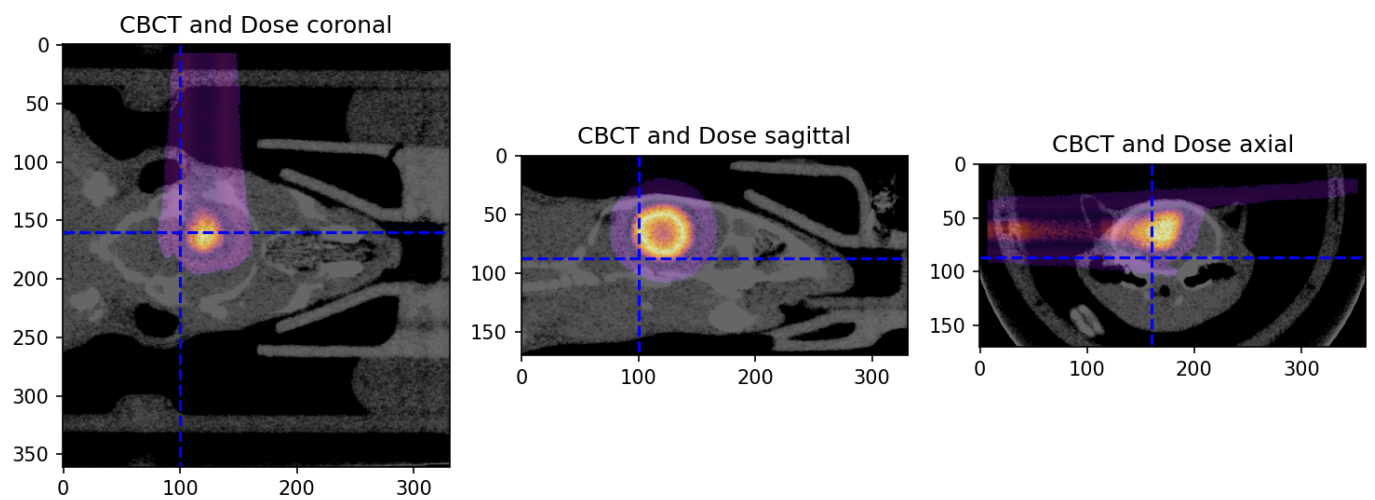


Figure 2.1: Overlay of CBCT and simulated dose distribution

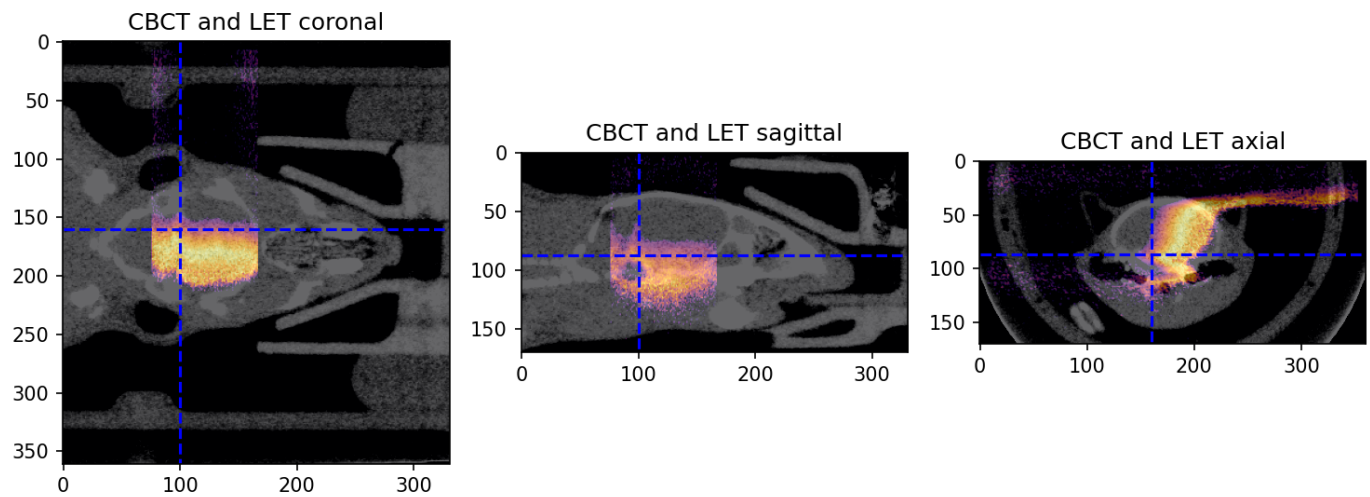


Figure 2.2: Overlay of CBCT and simulated LET distribution

3 Atlas image data

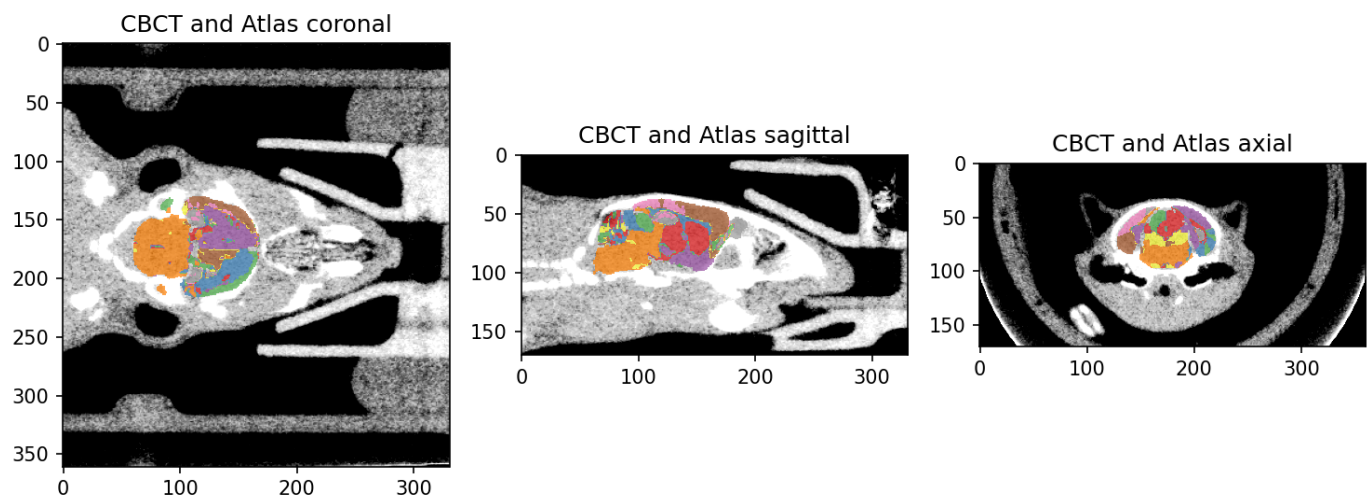


Figure 3.1: Overlay of CBCT and registered DSURQE brain atlas

4 MRI image data

4.1 Denoising

4.1.1 Sequence type: T1

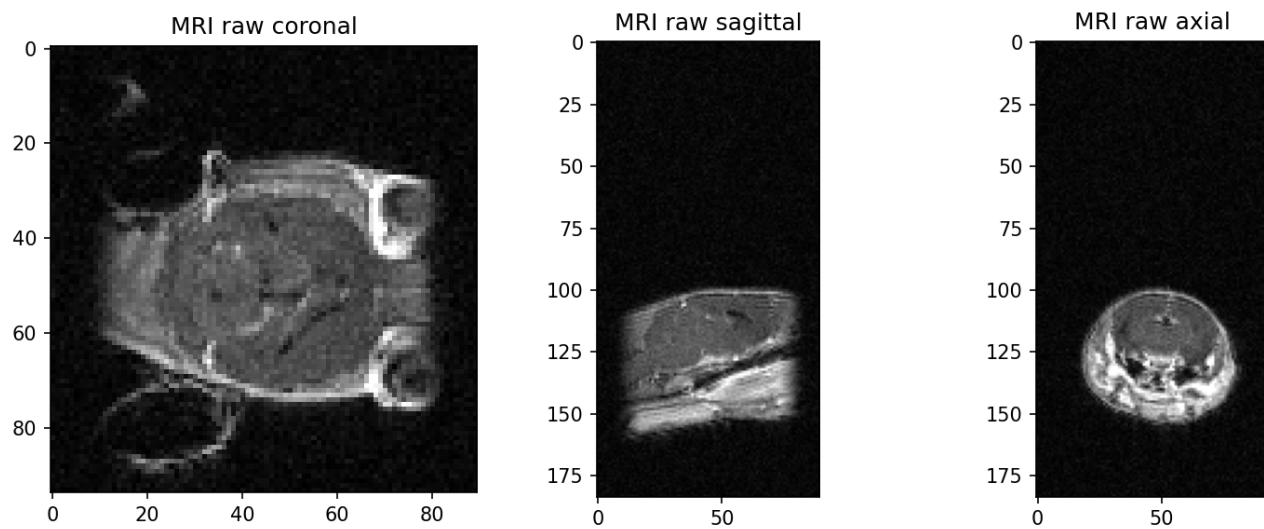


Figure 4.1: Raw MRI image, Timepoint:Week_00, Sequence type: T1

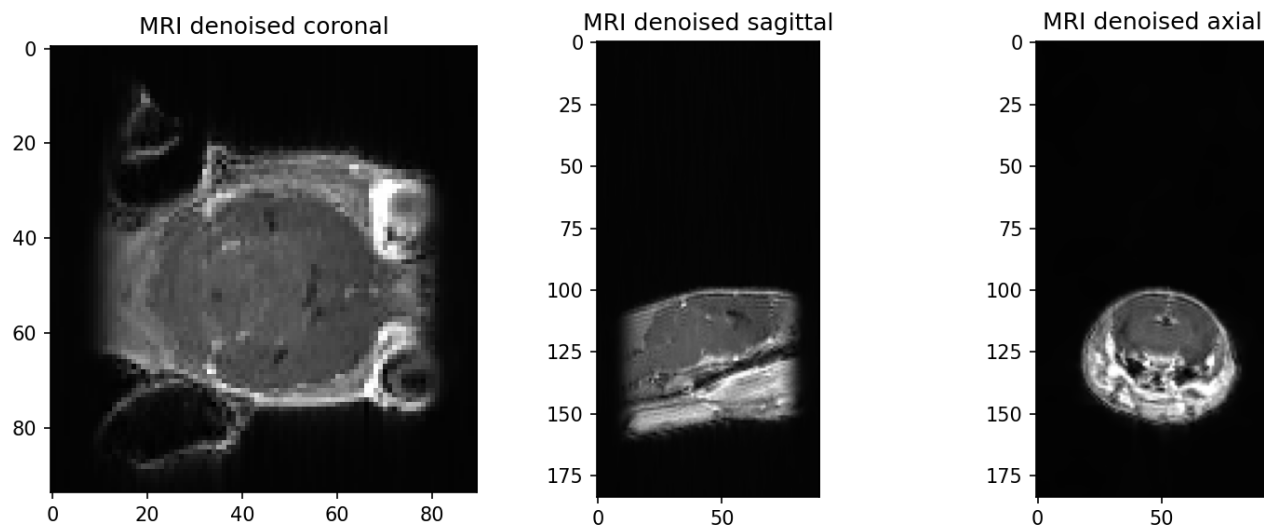


Figure 4.2: Denoised MRI image, Timepoint:Week_00, Sequence type: T1

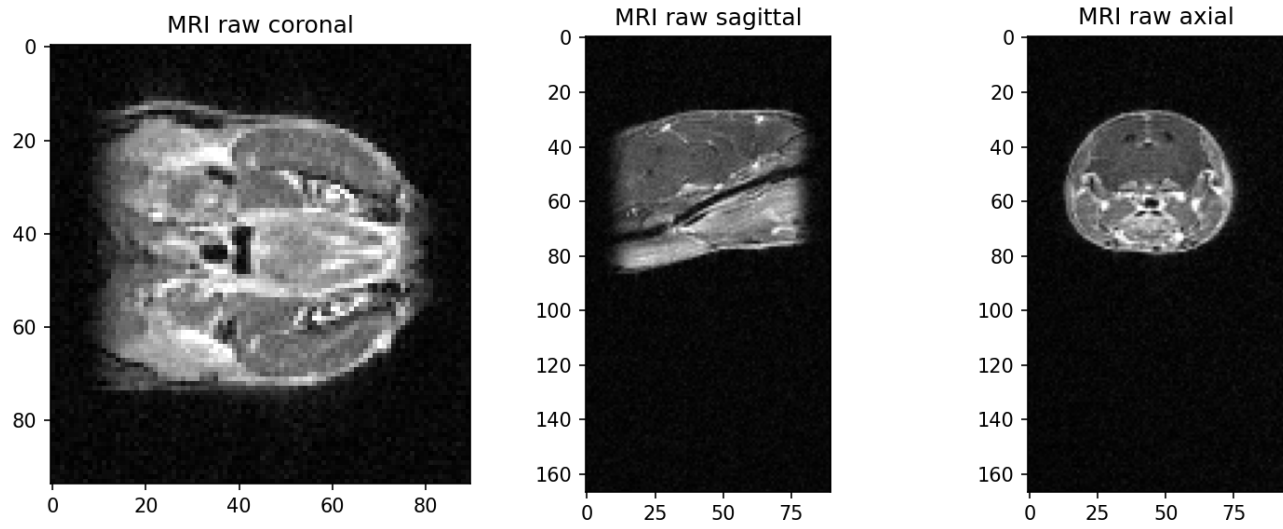


Figure 4.3: Raw MRI image, Timepoint:Week.01, Sequence type: T1

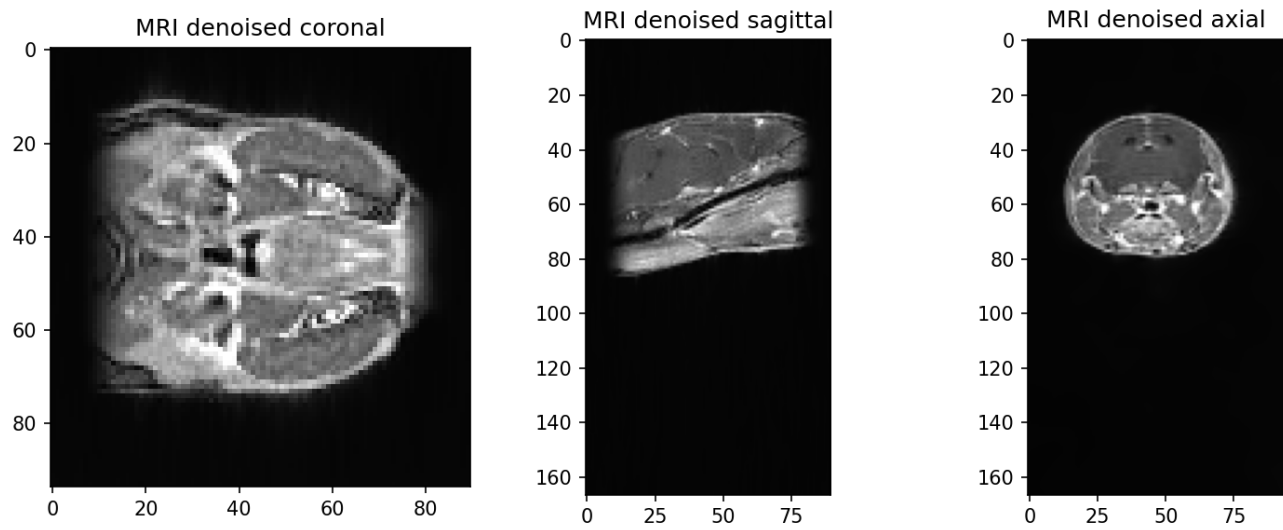


Figure 4.4: Denoised MRI image, Timepoint:Week.01, Sequence type: T1

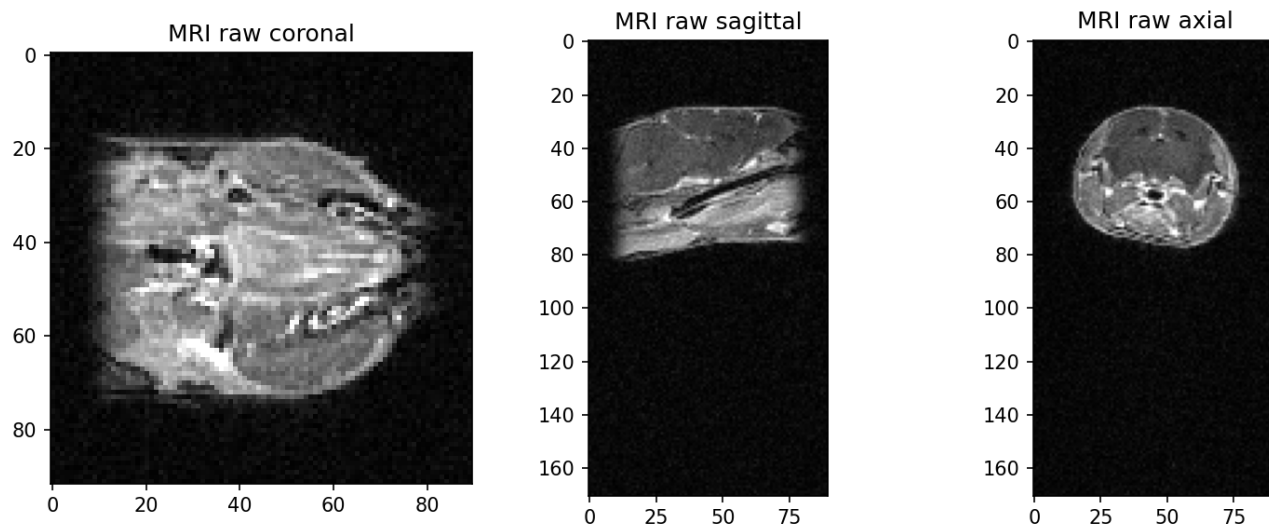


Figure 4.5: Raw MRI image, Timepoint:Week.03, Sequence type: T1

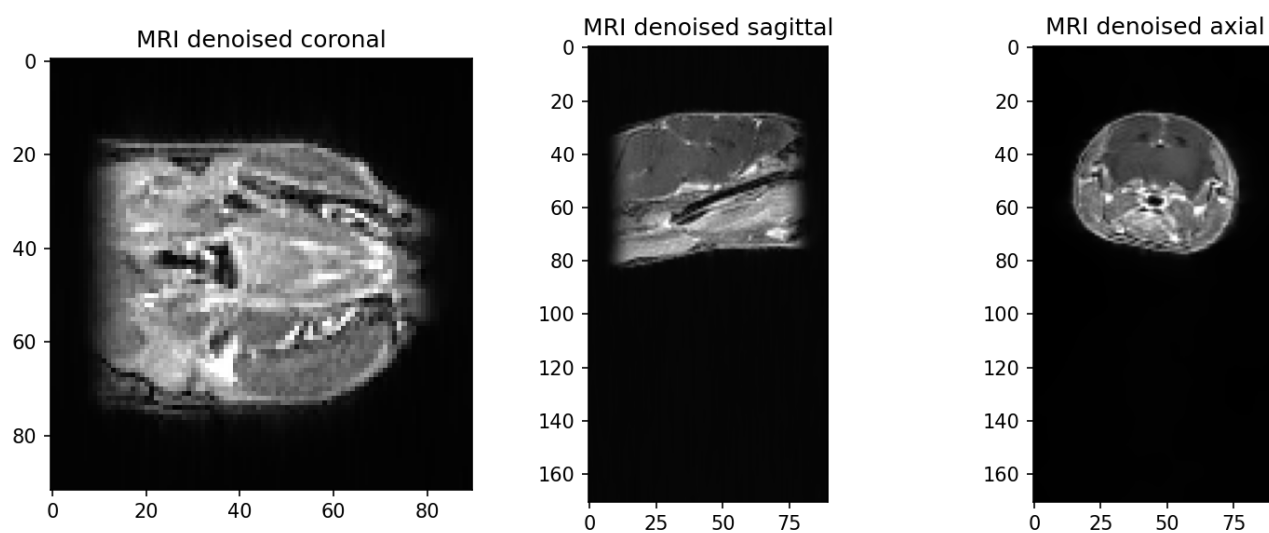


Figure 4.6: Denoised MRI image, Timepoint:Week.03, Sequence type: T1

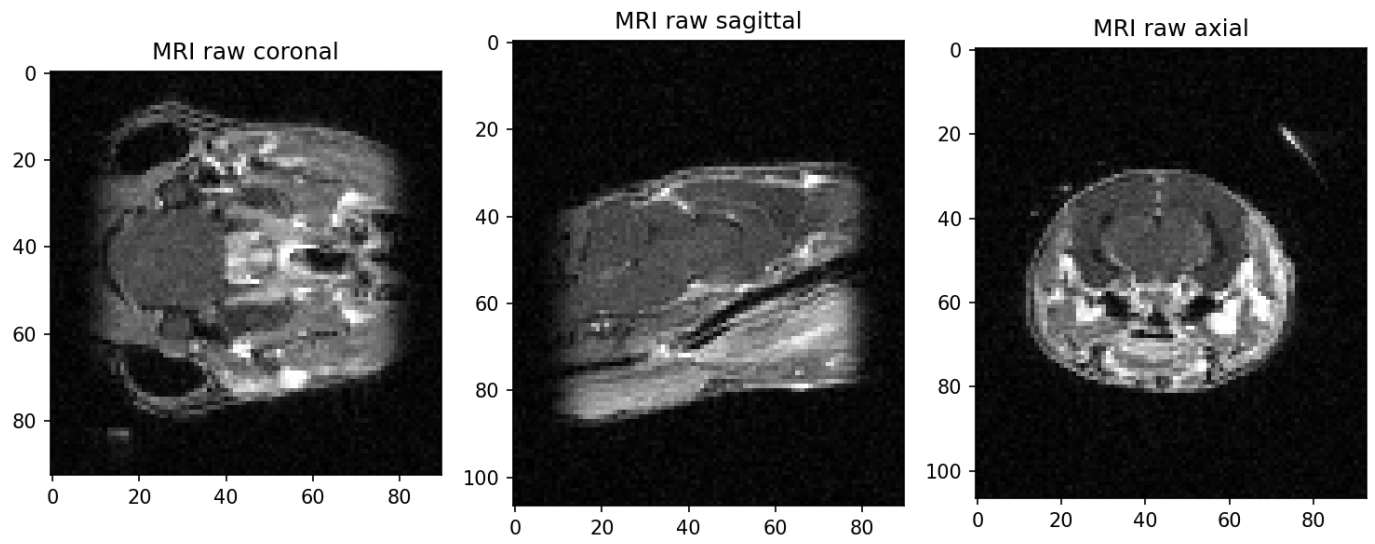


Figure 4.7: Raw MRI image, Timepoint:Week.05, Sequence type: T1

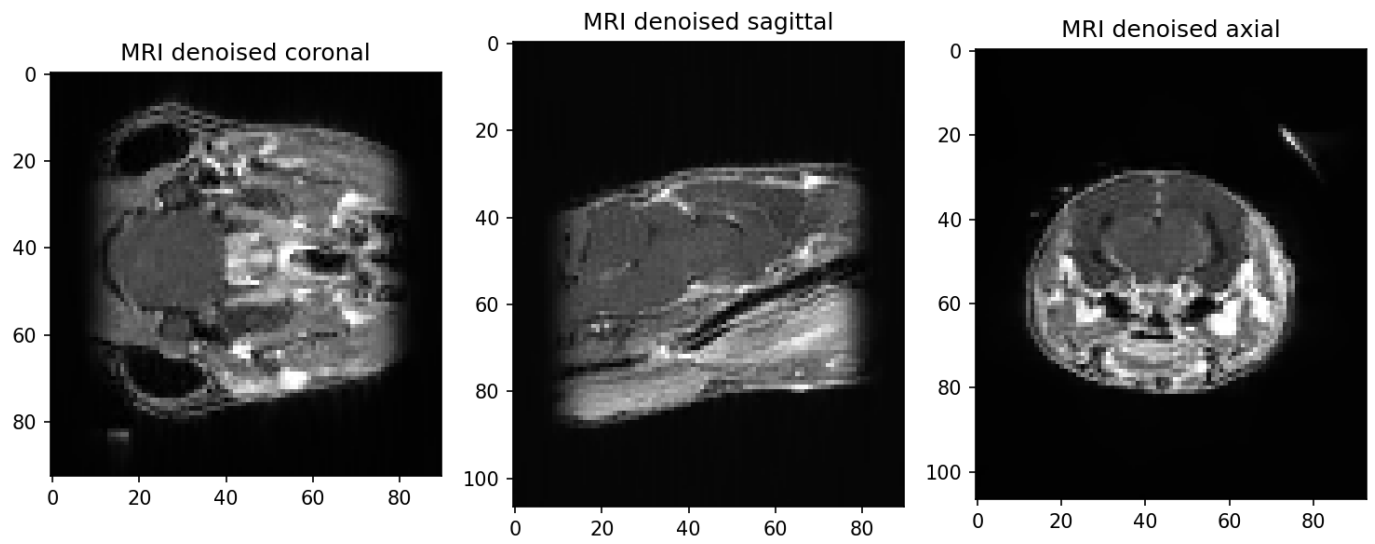


Figure 4.8: Denoised MRI image, Timepoint:Week.05, Sequence type: T1

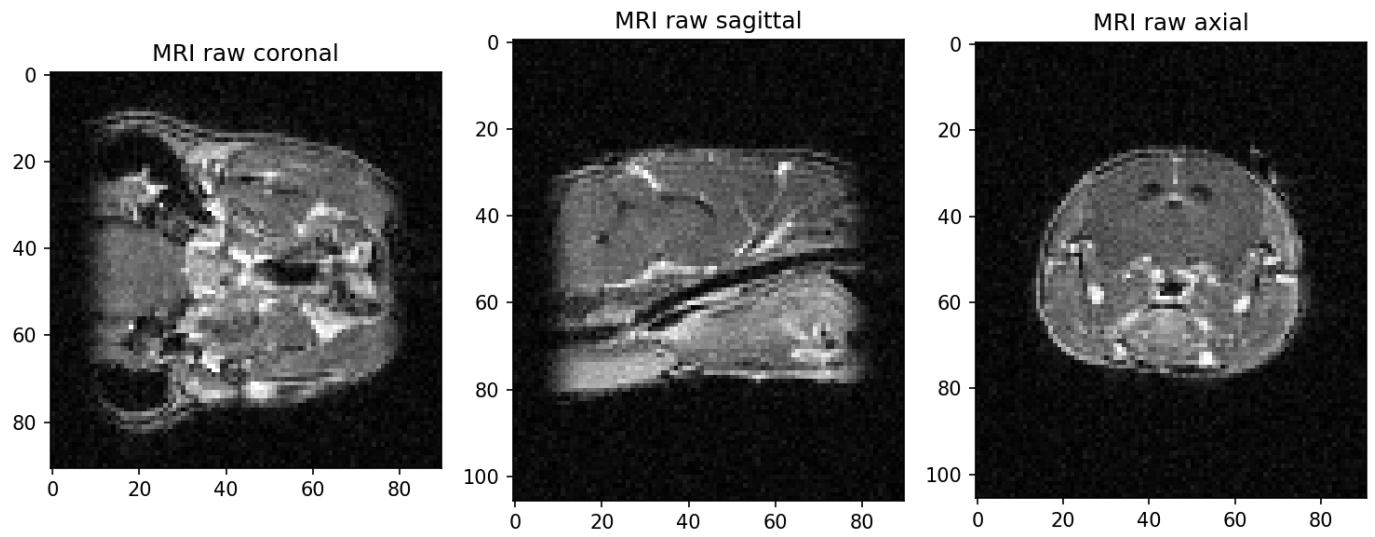


Figure 4.9: Raw MRI image, Timepoint:Week_07, Sequence type: T1

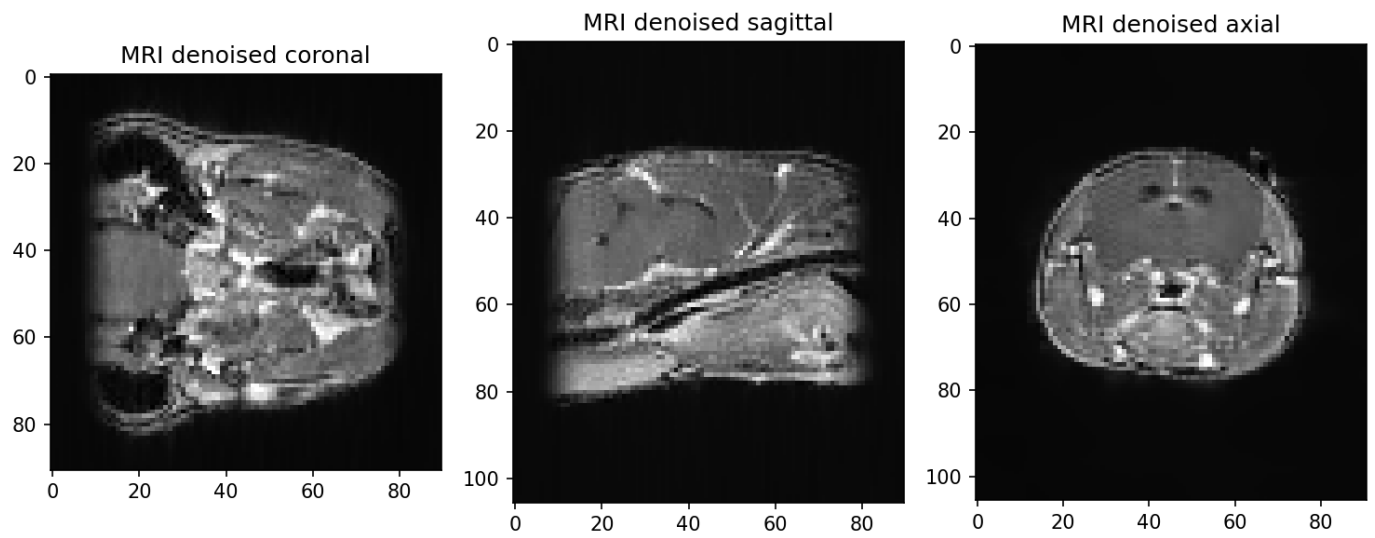


Figure 4.10: Denoised MRI image, Timepoint:Week_07, Sequence type: T1

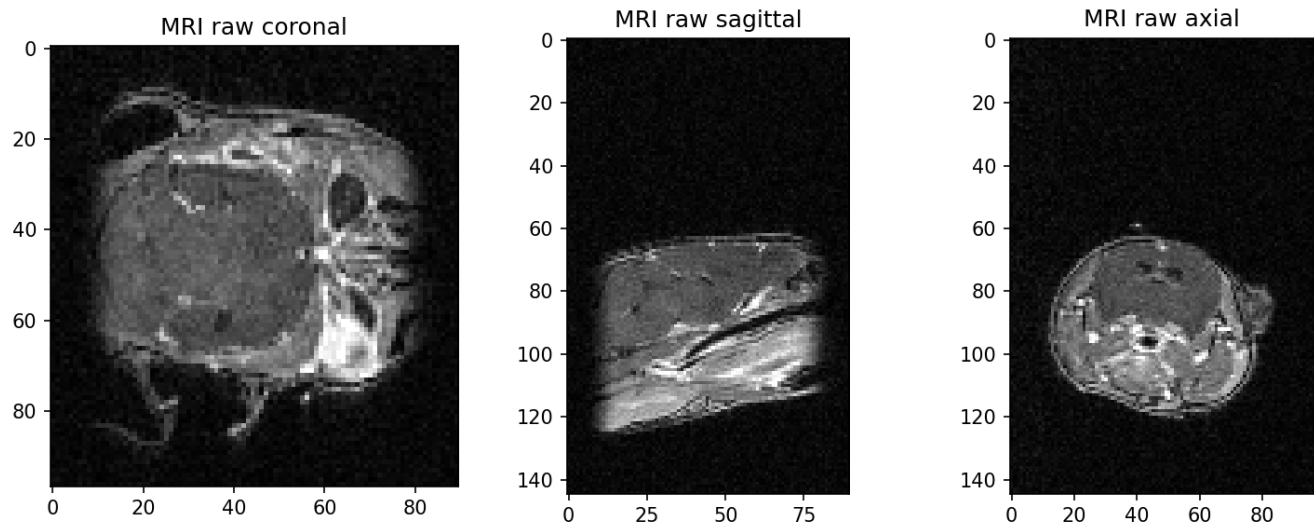


Figure 4.11: Raw MRI image, Timepoint:Week_09, Sequence type: T1

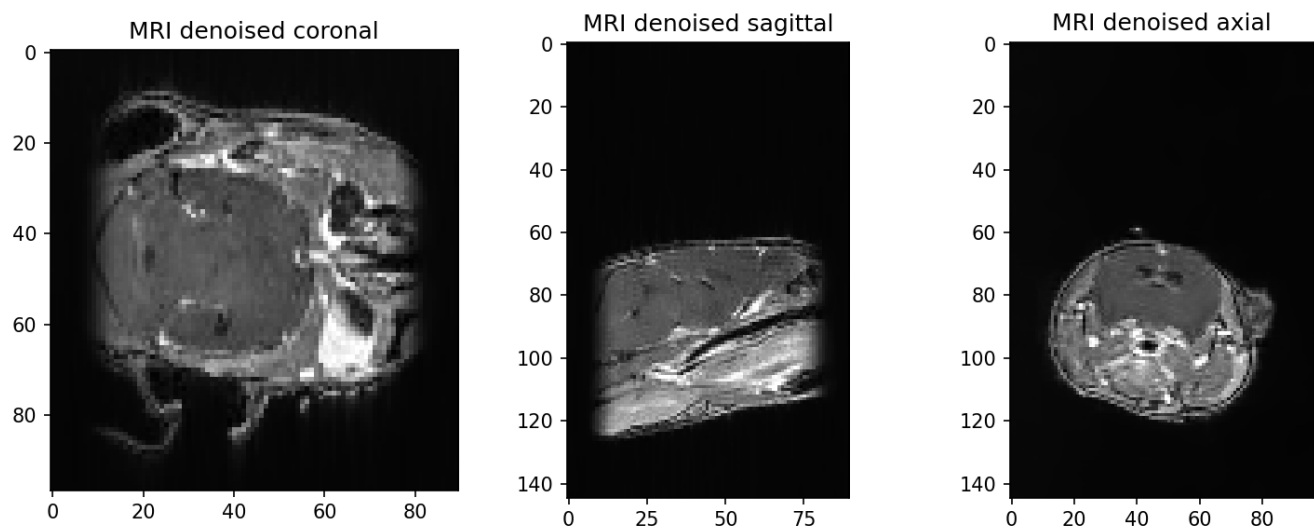


Figure 4.12: Denoised MRI image, Timepoint:Week_09, Sequence type: T1

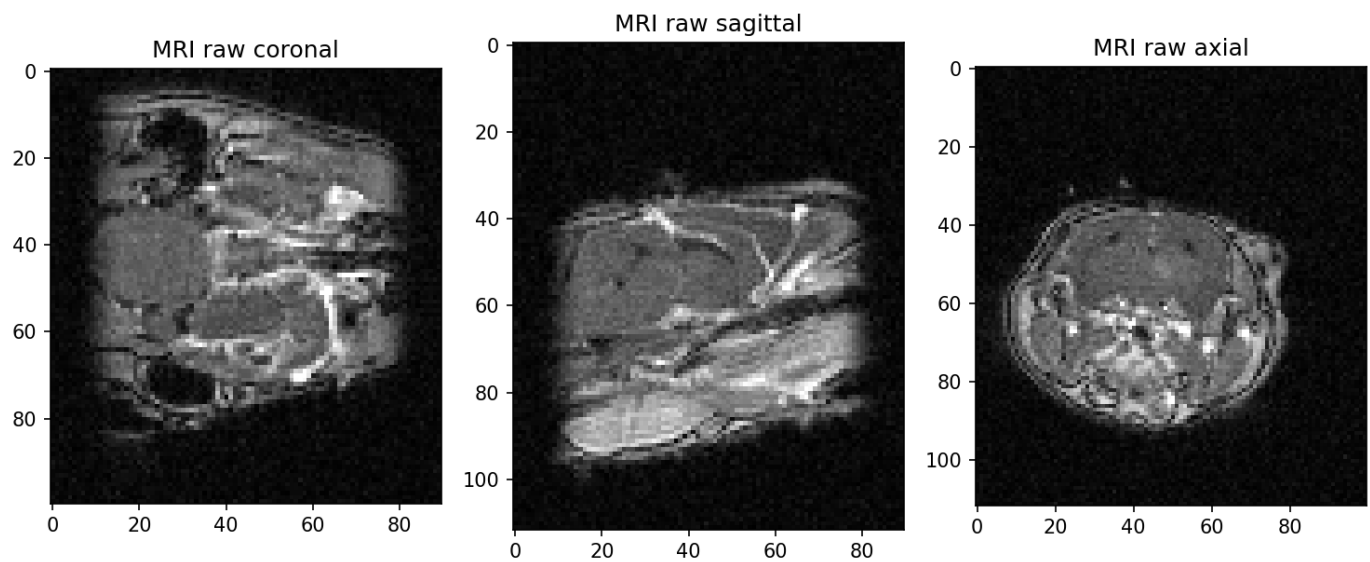


Figure 4.13: Raw MRI image, Timepoint:Week_11, Sequence type: T1

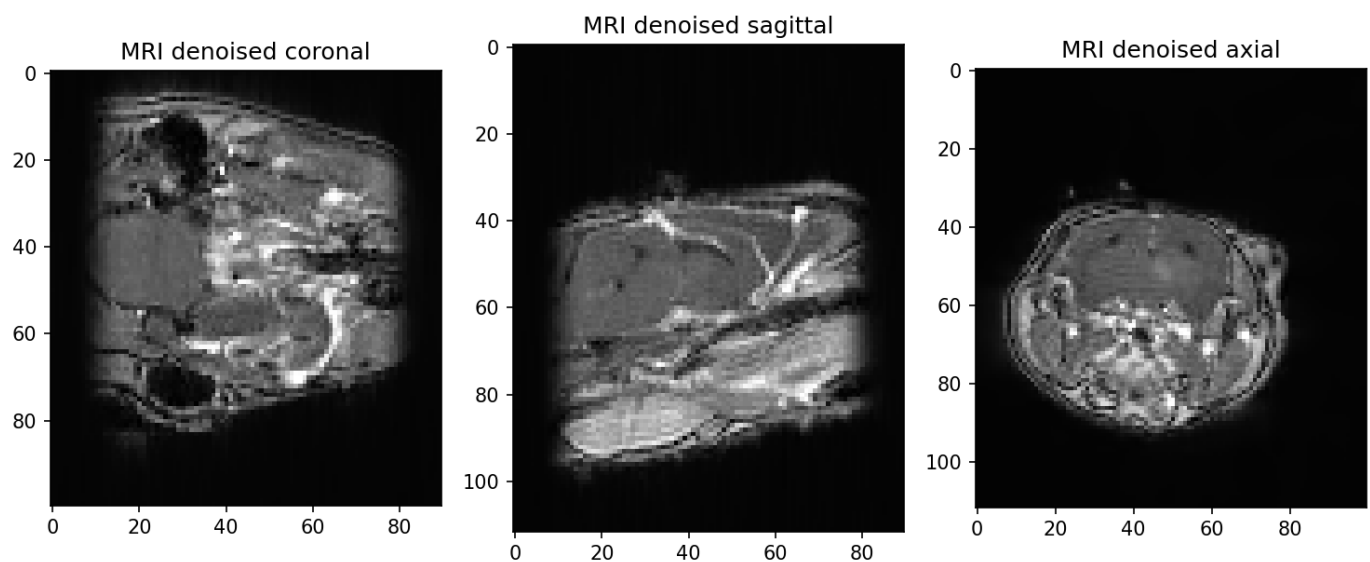


Figure 4.14: Denoised MRI image, Timepoint:Week_11, Sequence type: T1

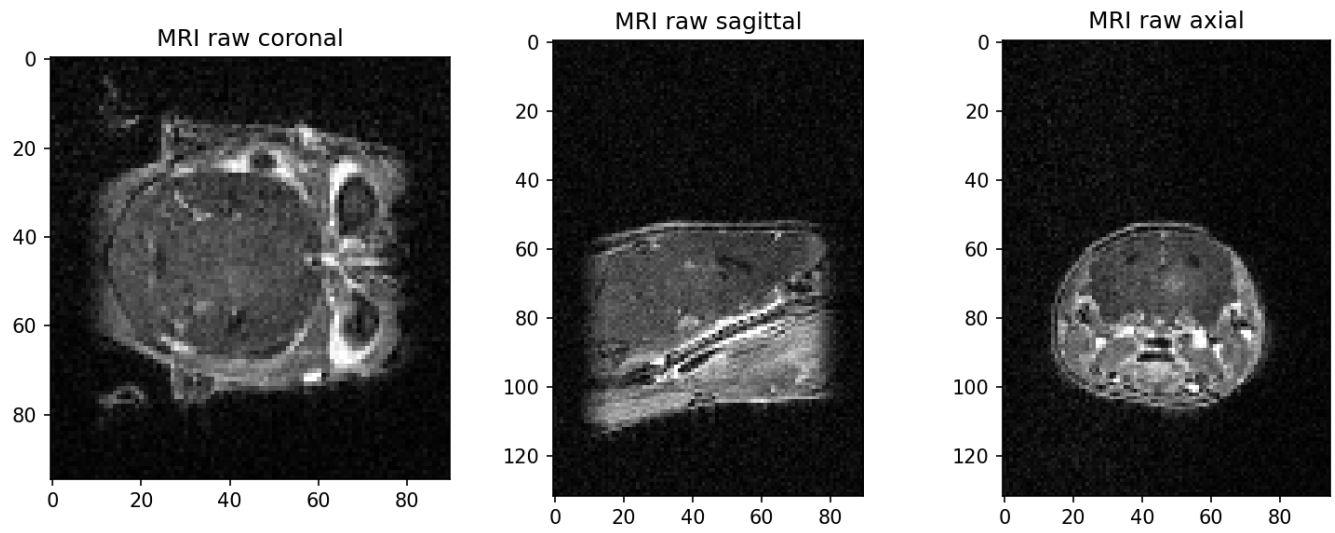


Figure 4.15: Raw MRI image, Timepoint:Week_13, Sequence type: T1

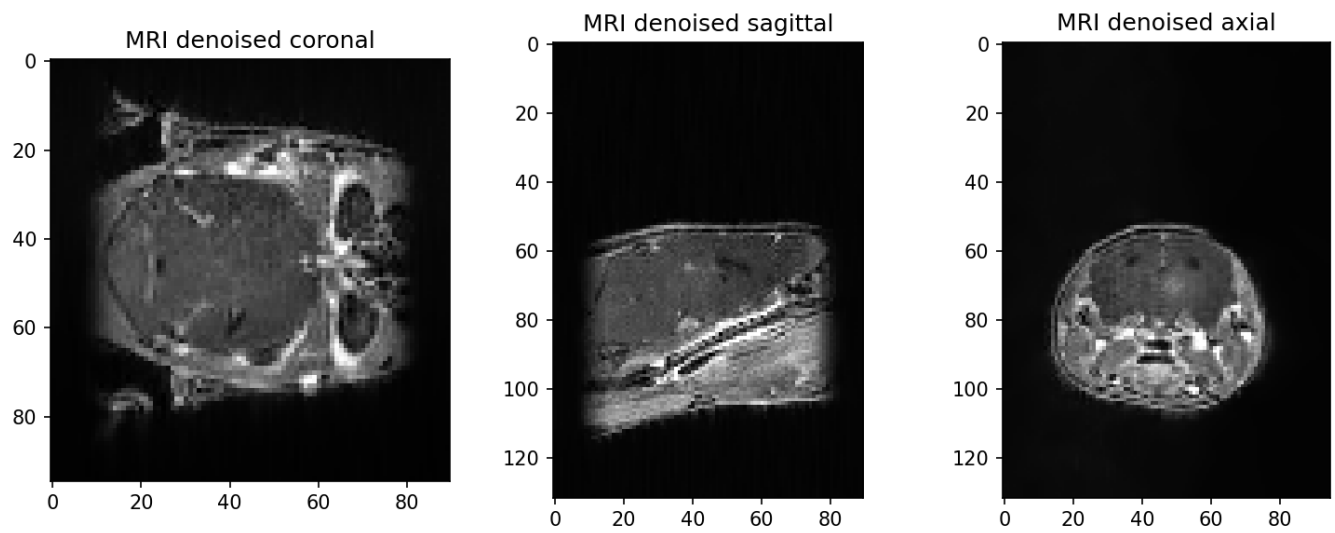


Figure 4.16: Denoised MRI image, Timepoint:Week_13, Sequence type: T1

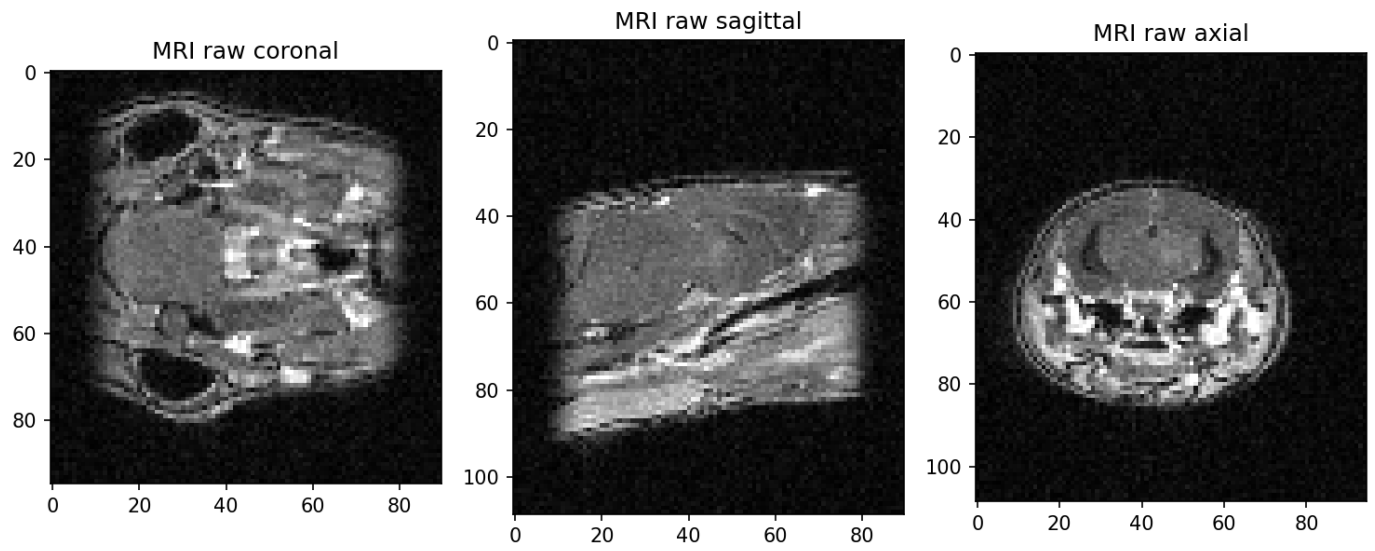


Figure 4.17: Raw MRI image, Timepoint:Week_15, Sequence type: T1

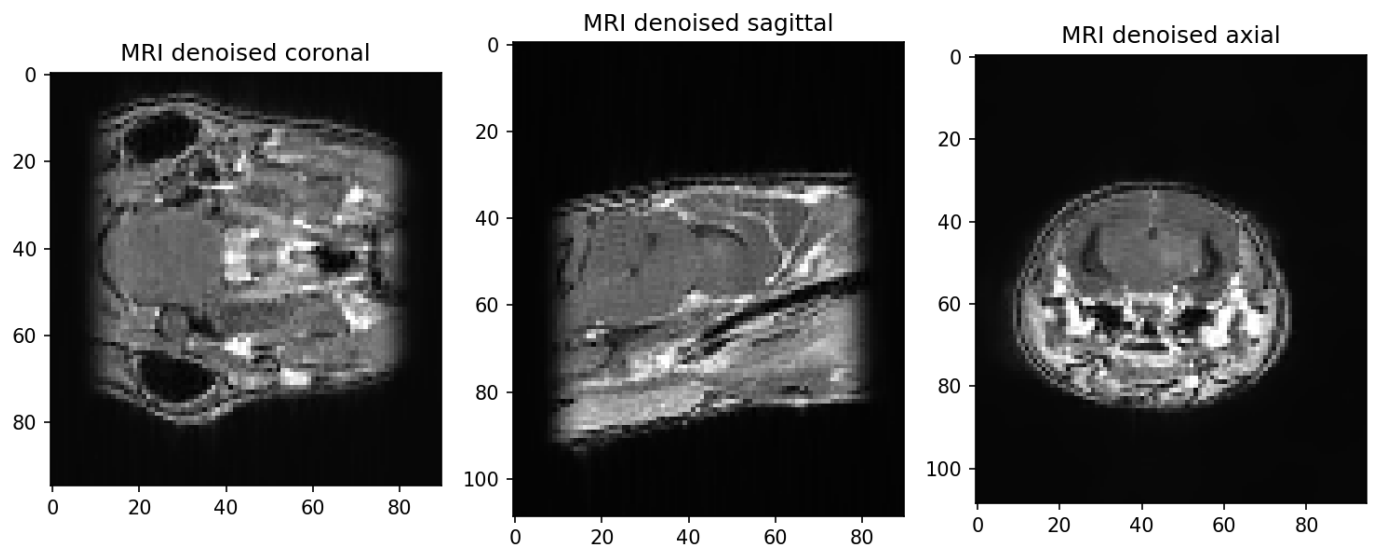


Figure 4.18: Denoised MRI image, Timepoint:Week_15, Sequence type: T1

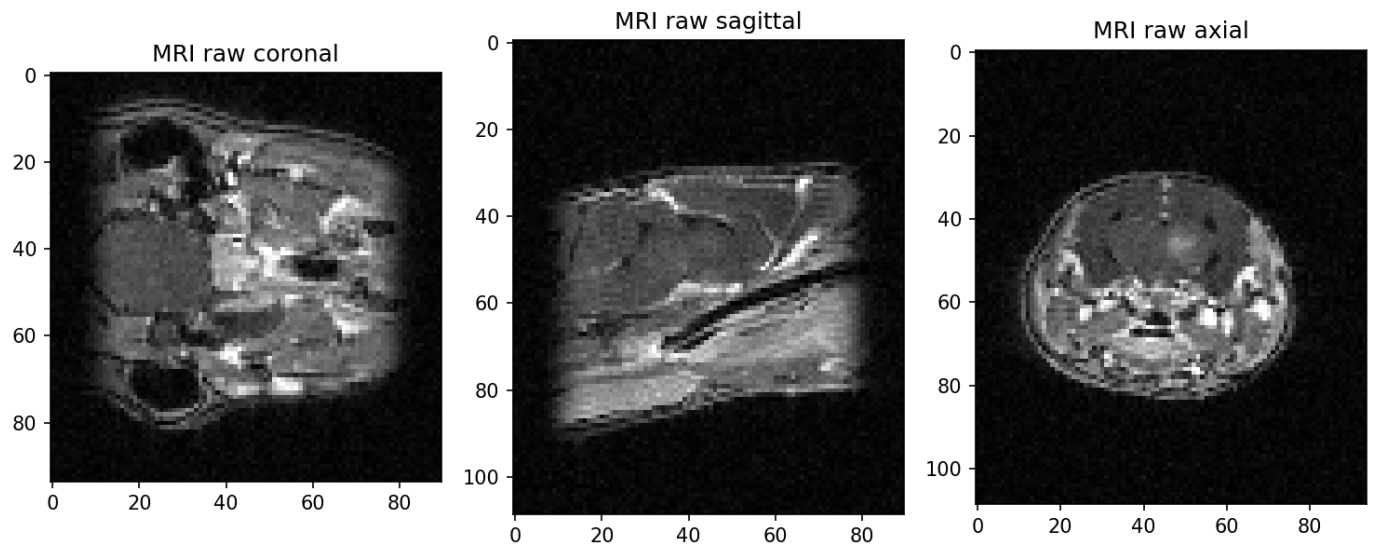


Figure 4.19: Raw MRI image, Timepoint:Week_17, Sequence type: T1

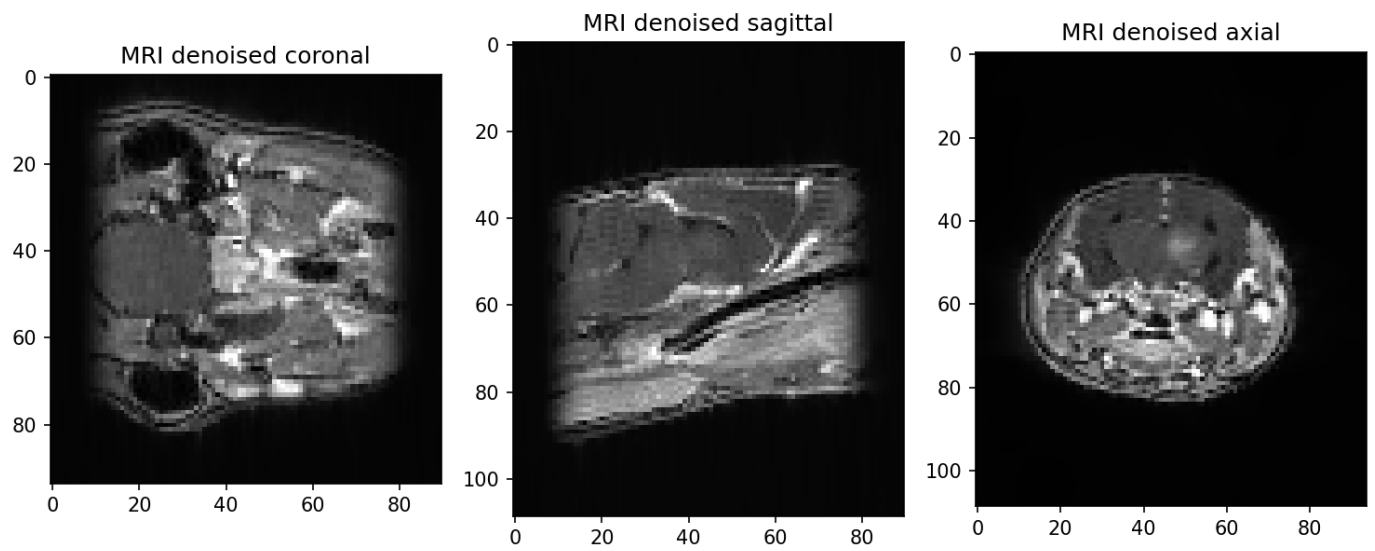


Figure 4.20: Denoised MRI image, Timepoint:Week_17, Sequence type: T1

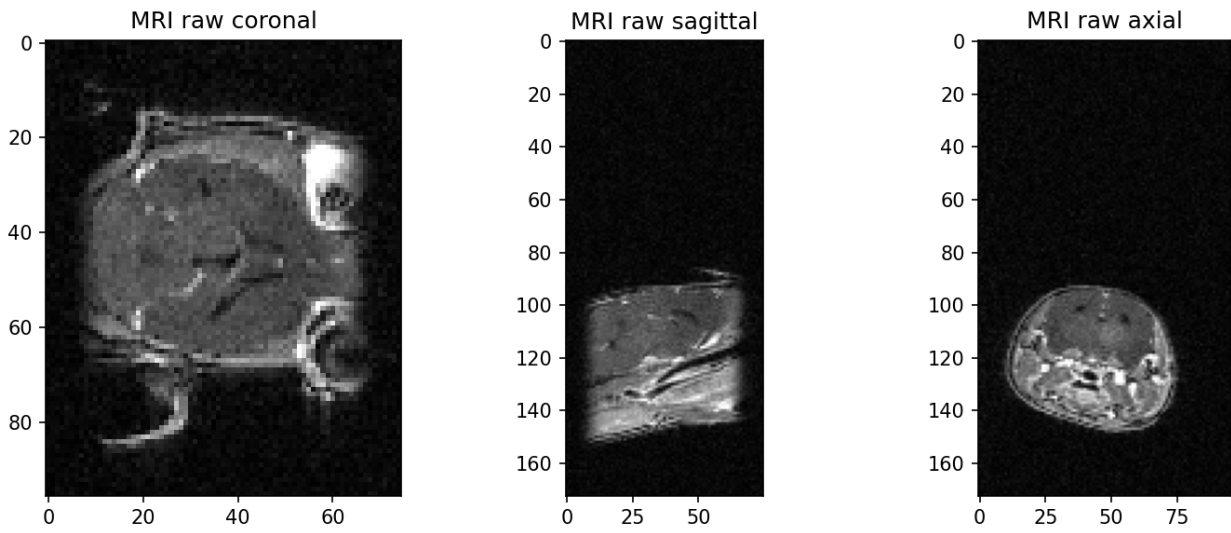


Figure 4.21: Raw MRI image, Timepoint:Week_19, Sequence type: T1

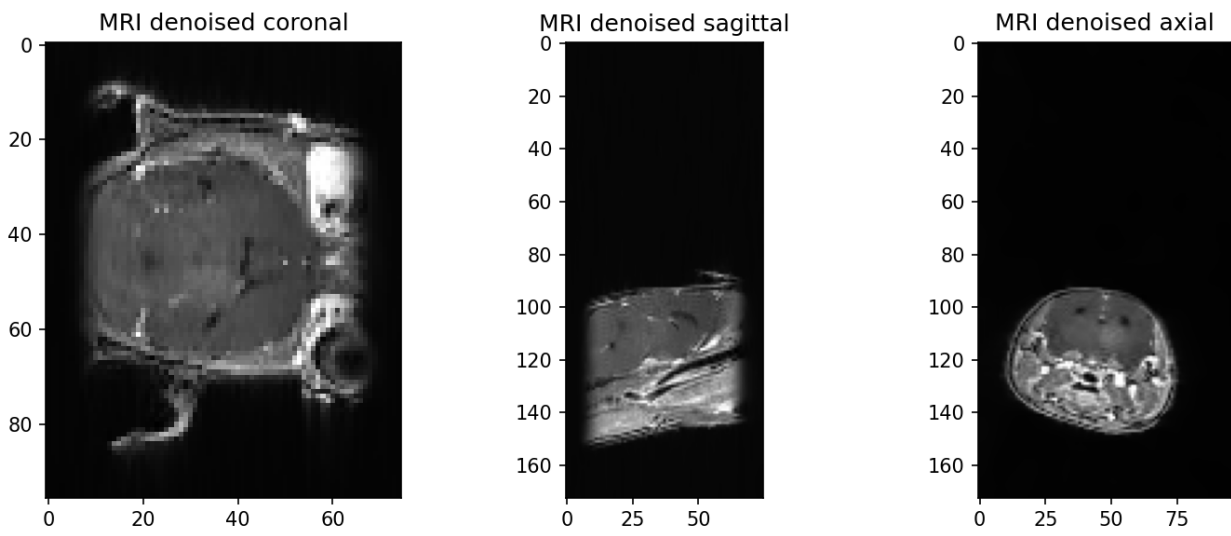


Figure 4.22: Denoised MRI image, Timepoint:Week_19, Sequence type: T1

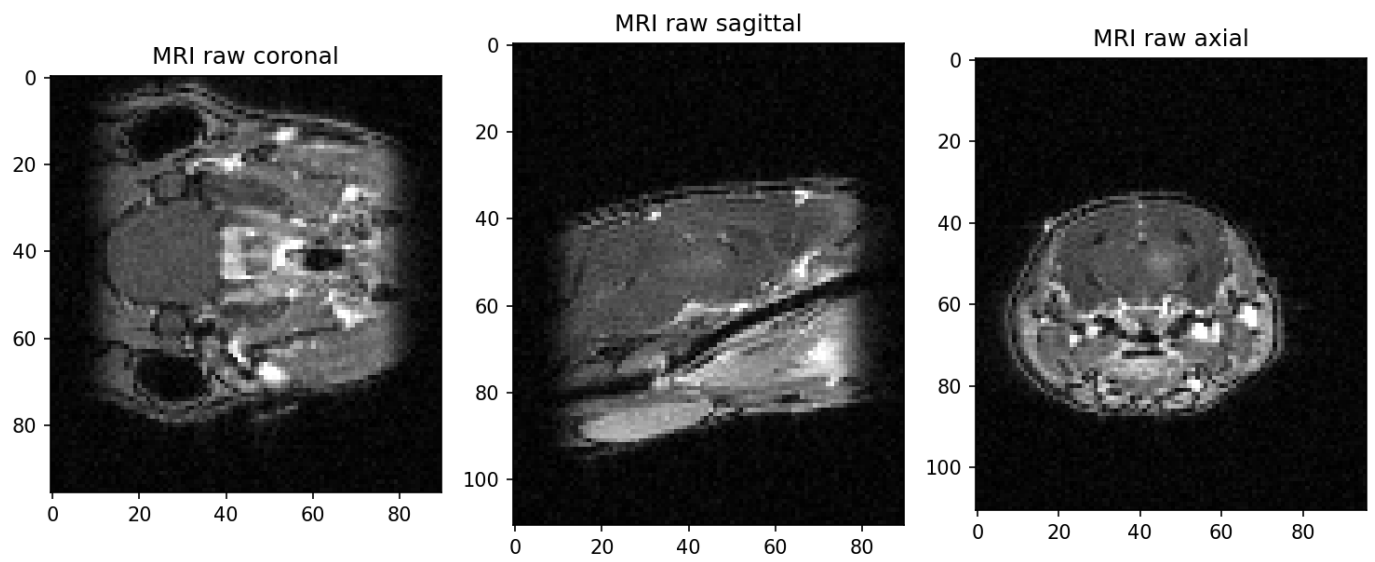


Figure 4.23: Raw MRI image, Timepoint:Week_21, Sequence type: T1

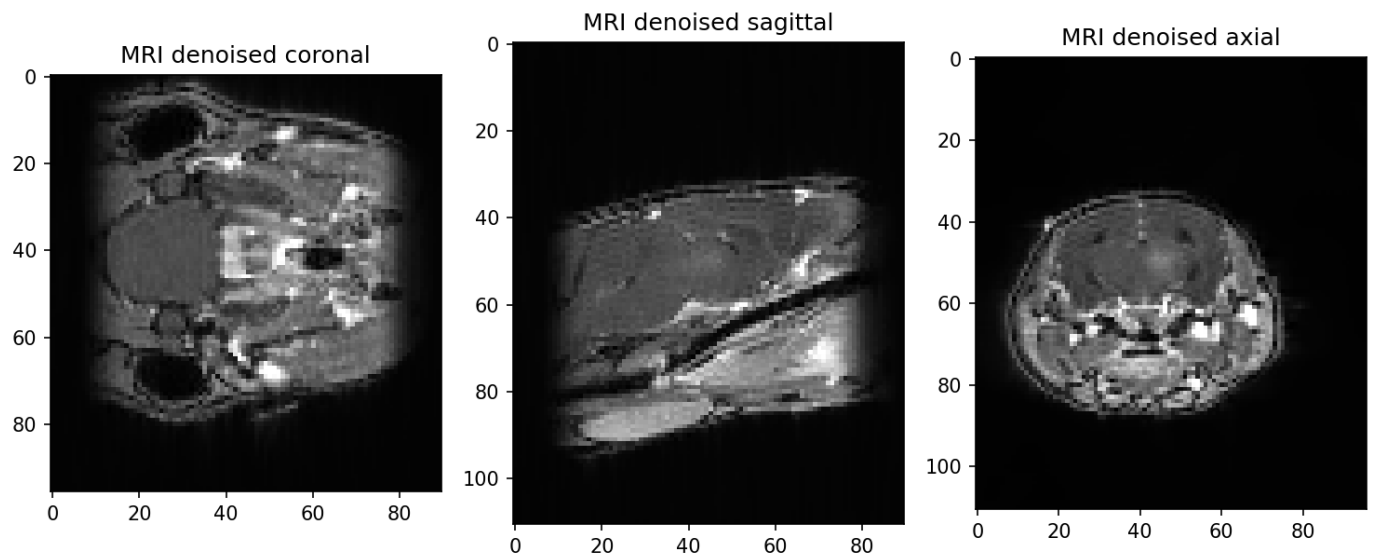


Figure 4.24: Denoised MRI image, Timepoint:Week_21, Sequence type: T1

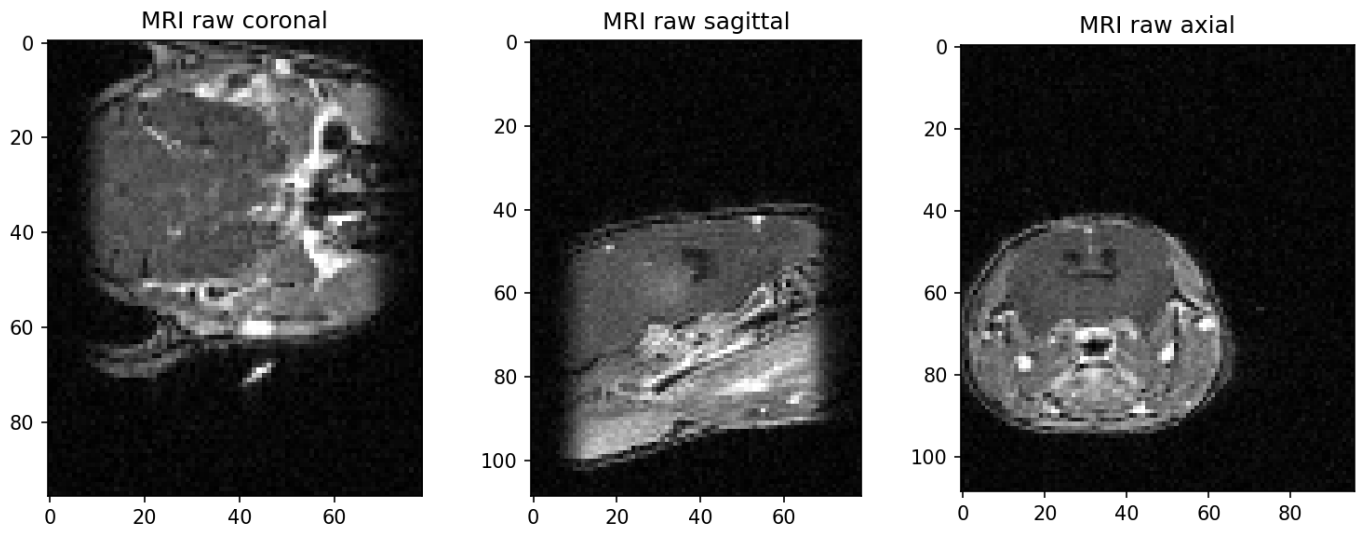


Figure 4.25: Raw MRI image, Timepoint:Week_25, Sequence type: T1

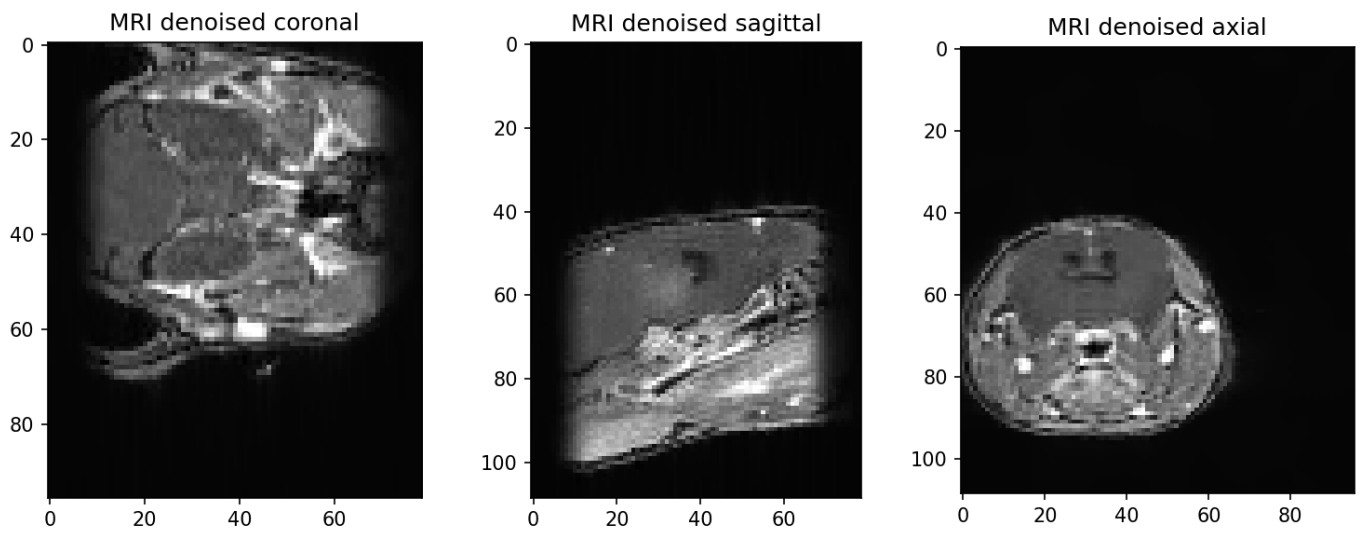


Figure 4.26: Denoised MRI image, Timepoint:Week_25, Sequence type: T1

4.1.2 Sequence type: T2

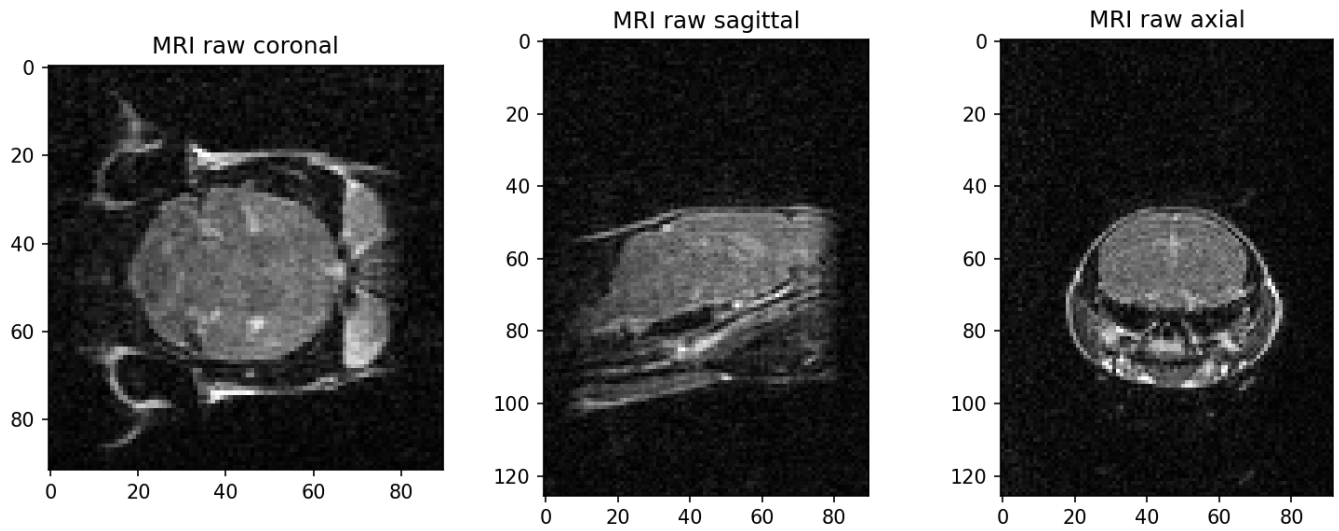


Figure 4.27: Raw MRI image, Timepoint:Week_00, Sequence type: T2

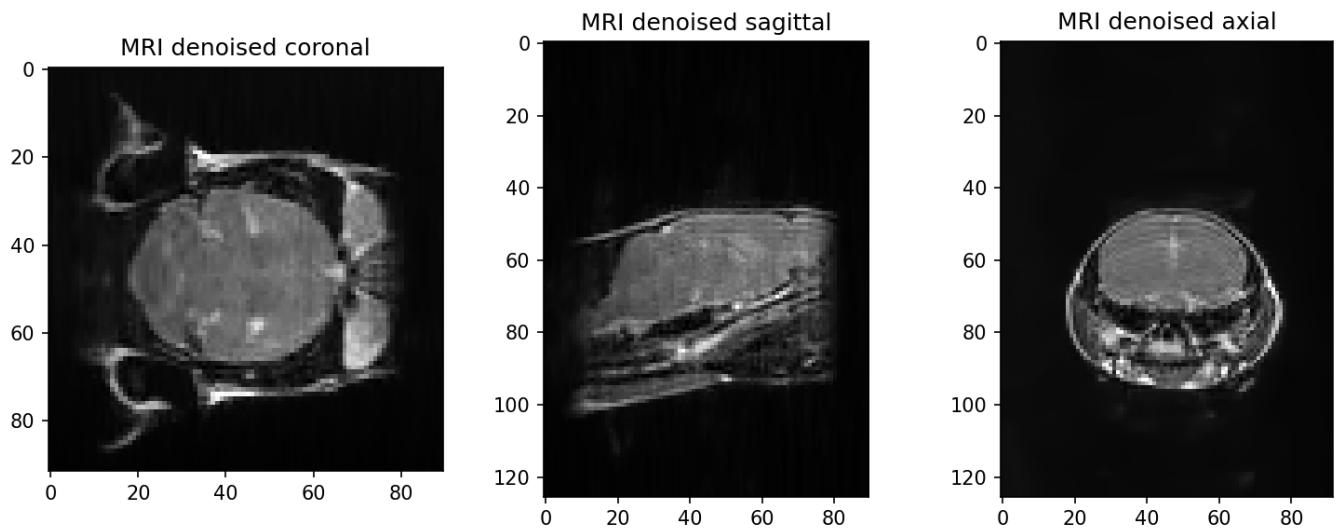


Figure 4.28: Denoised MRI image, Timepoint:Week_00, Sequence type: T2

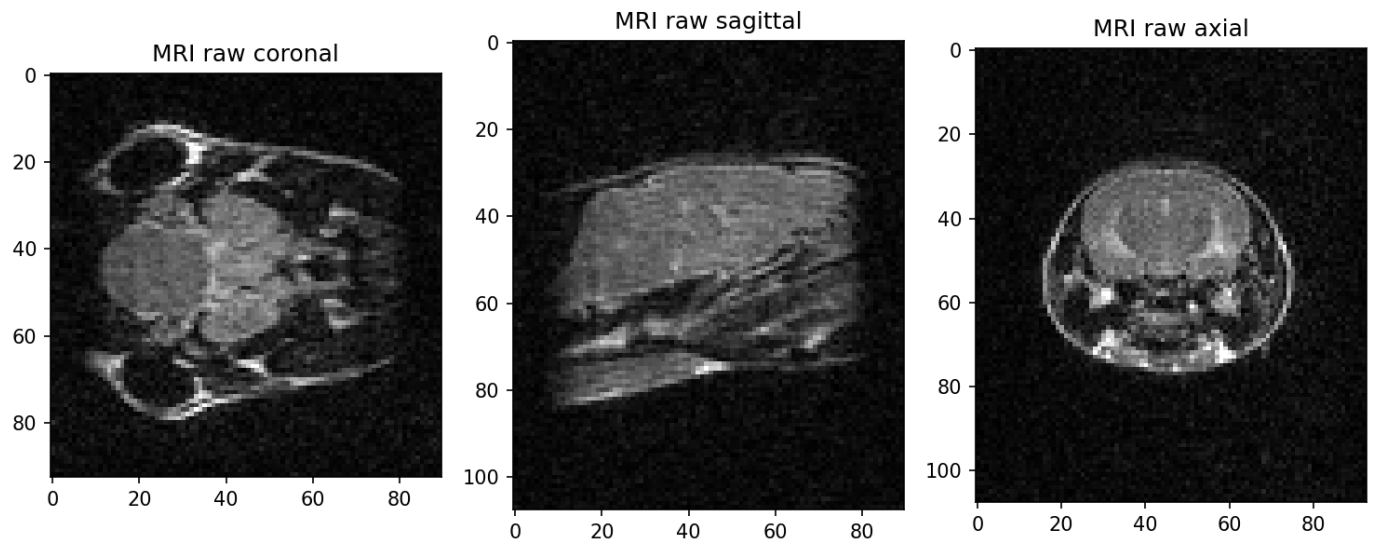


Figure 4.29: Raw MRI image, Timepoint:Week_01, Sequence type: T2

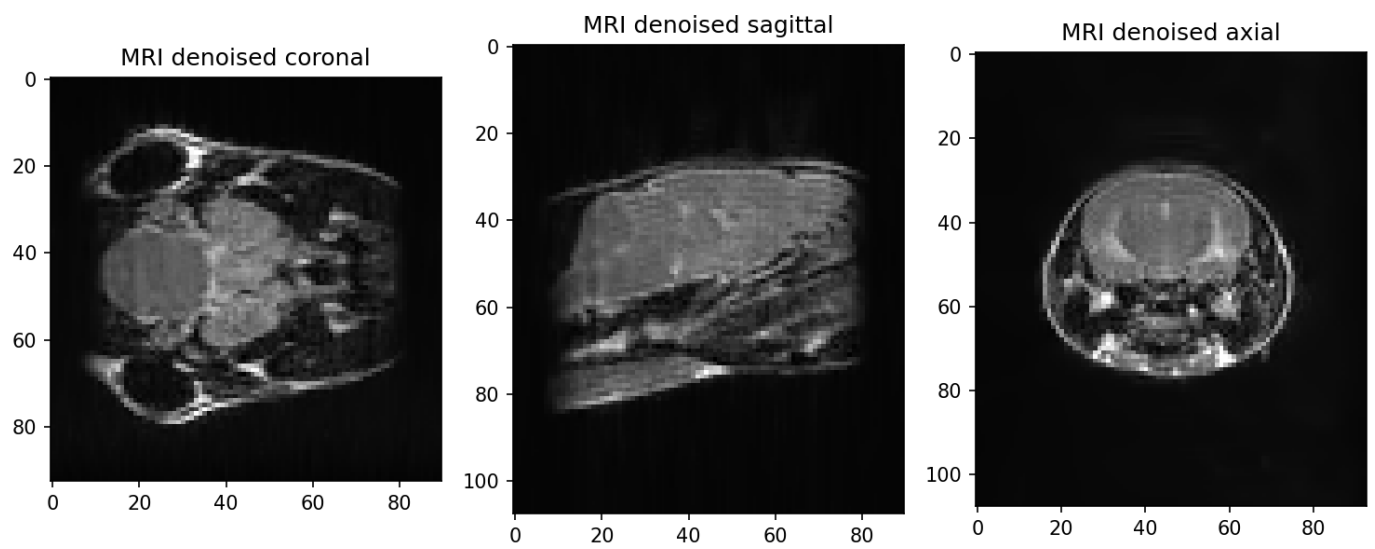


Figure 4.30: Denoised MRI image, Timepoint:Week_01, Sequence type: T2

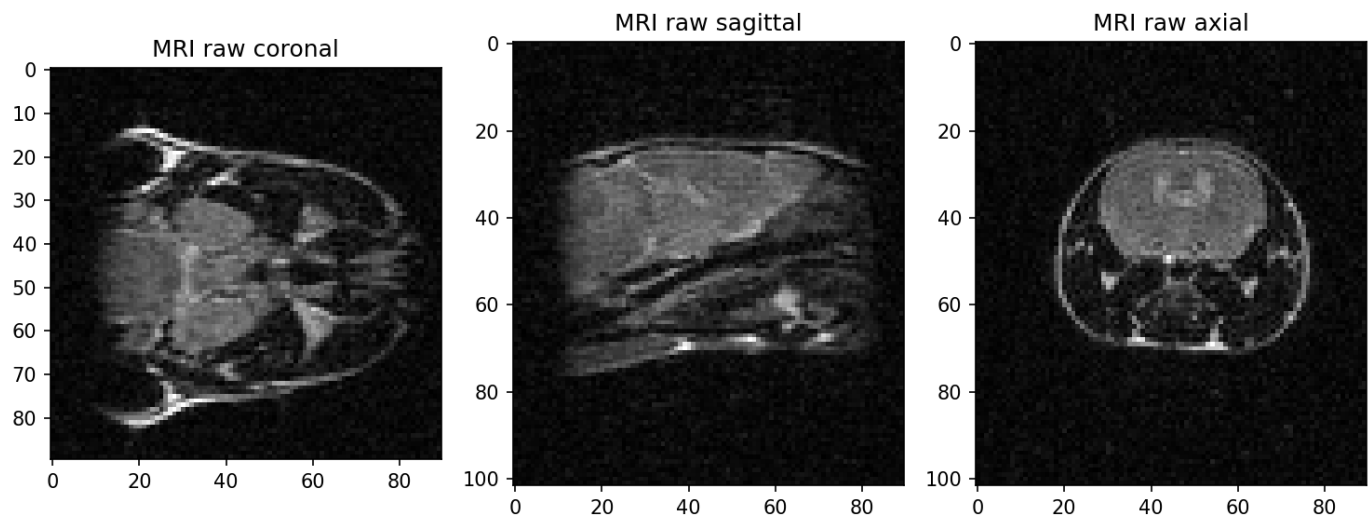


Figure 4.31: Raw MRI image, Timepoint:Week_03, Sequence type: T2

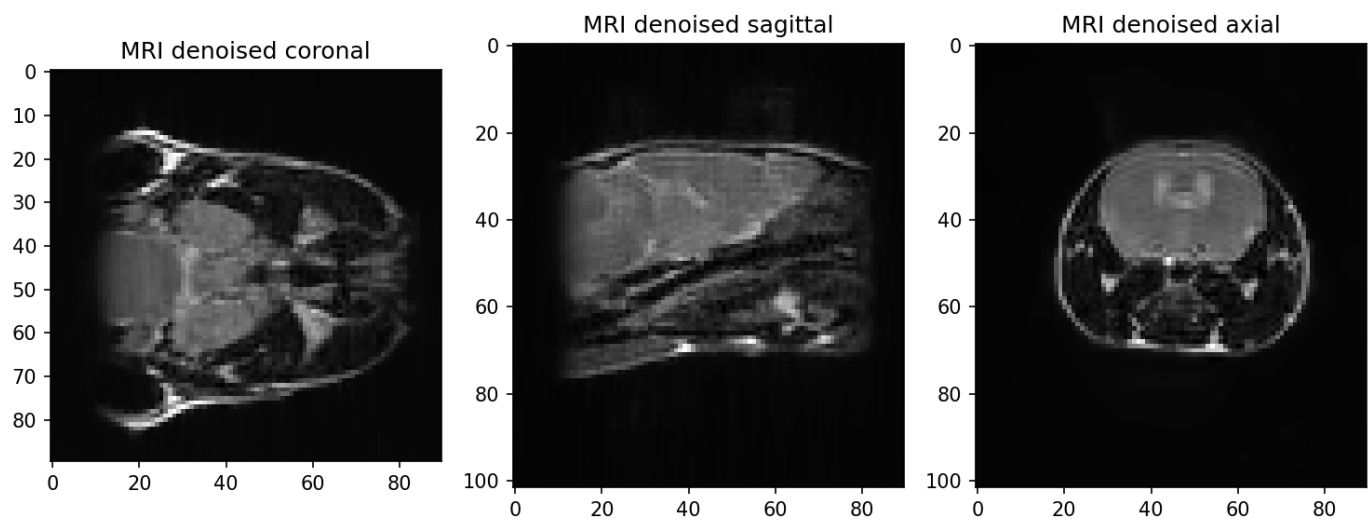


Figure 4.32: Denoised MRI image, Timepoint:Week_03, Sequence type: T2

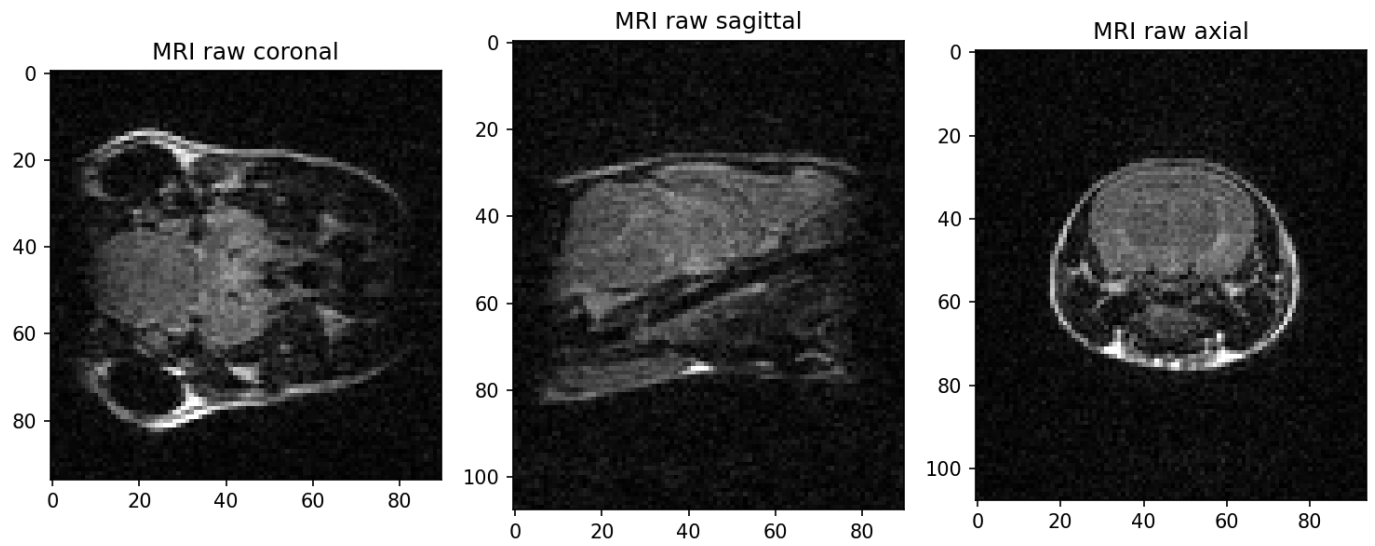


Figure 4.33: Raw MRI image, Timepoint:Week_05, Sequence type: T2

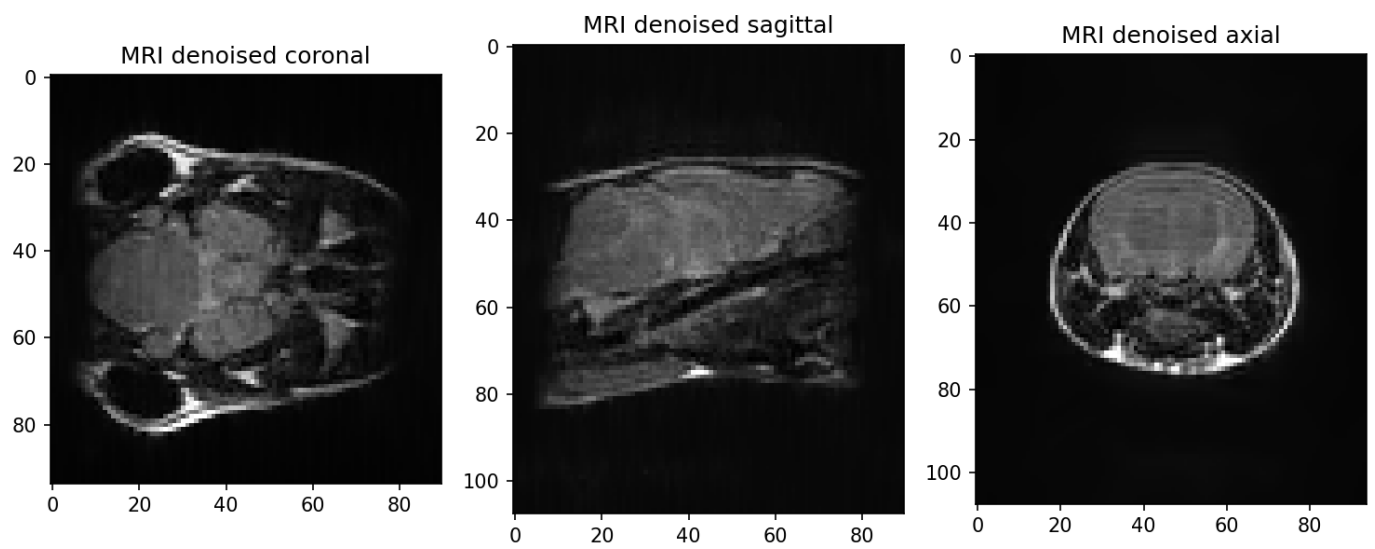


Figure 4.34: Denoised MRI image, Timepoint:Week_05, Sequence type: T2

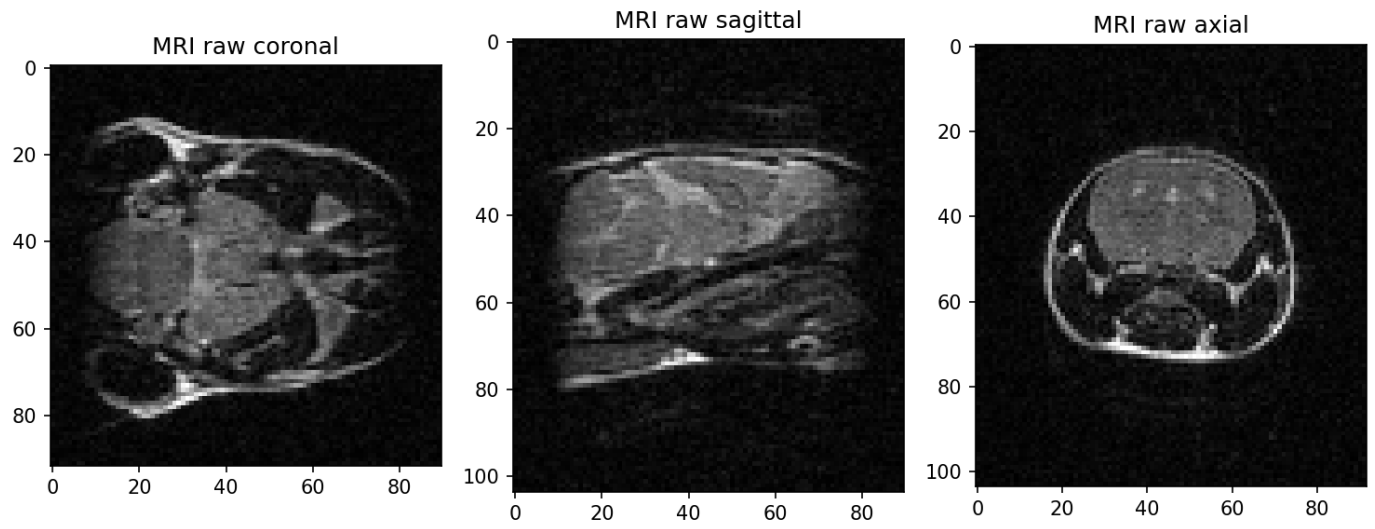


Figure 4.35: Raw MRI image, Timepoint:Week_07, Sequence type: T2

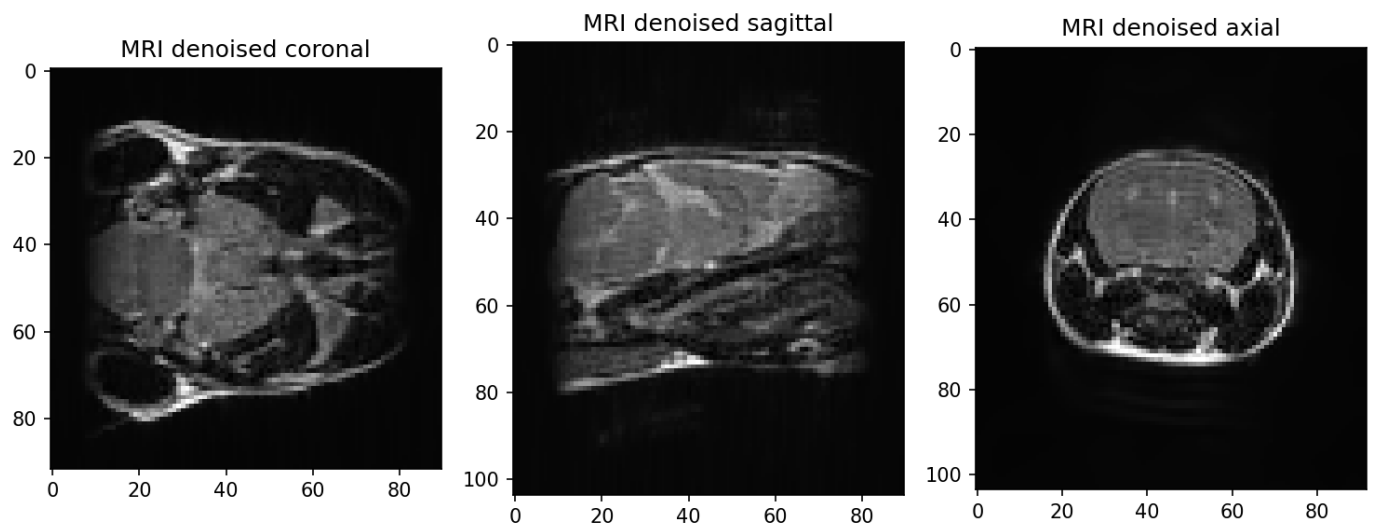


Figure 4.36: Denoised MRI image, Timepoint:Week_07, Sequence type: T2

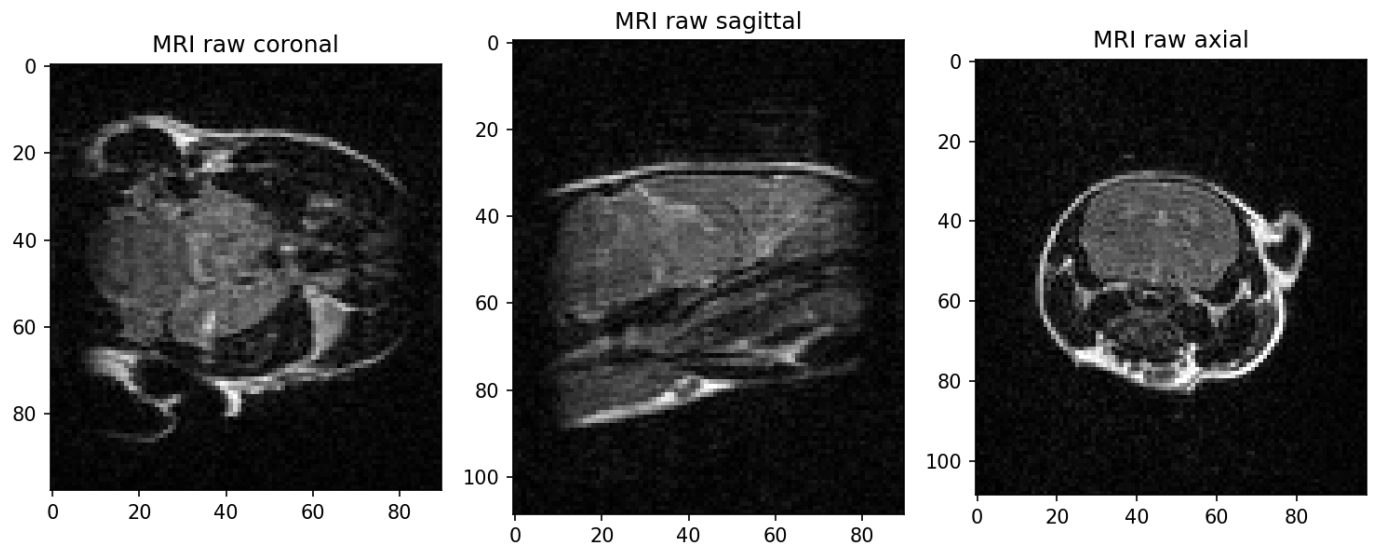


Figure 4.37: Raw MRI image, Timepoint:Week_09, Sequence type: T2

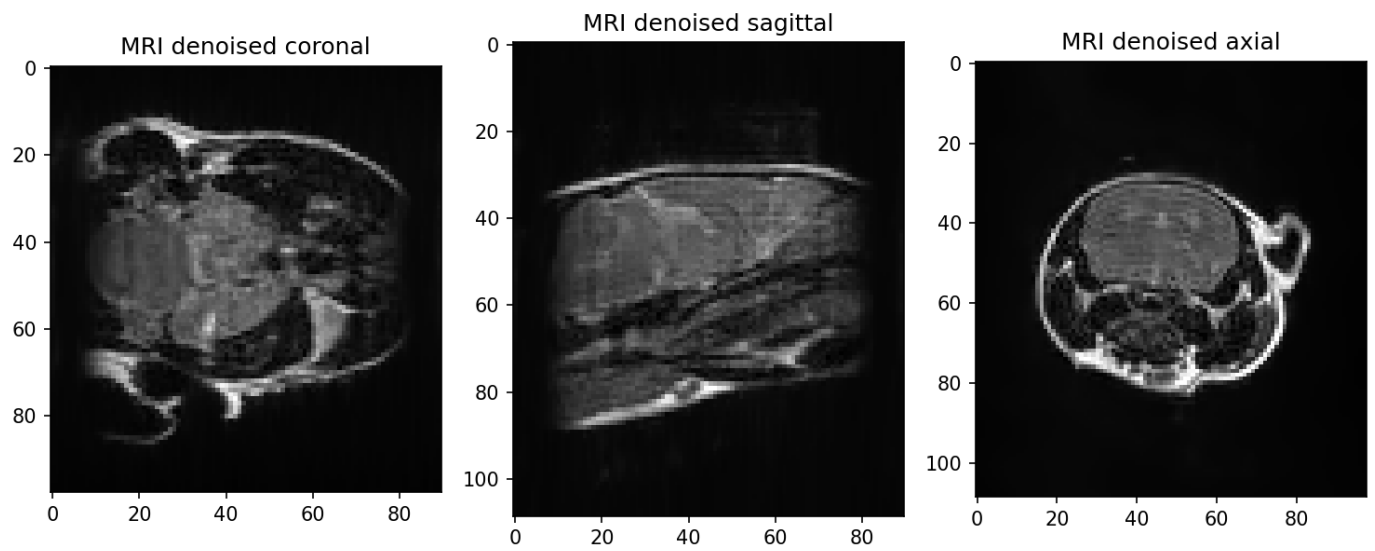


Figure 4.38: Denoised MRI image, Timepoint:Week_09, Sequence type: T2

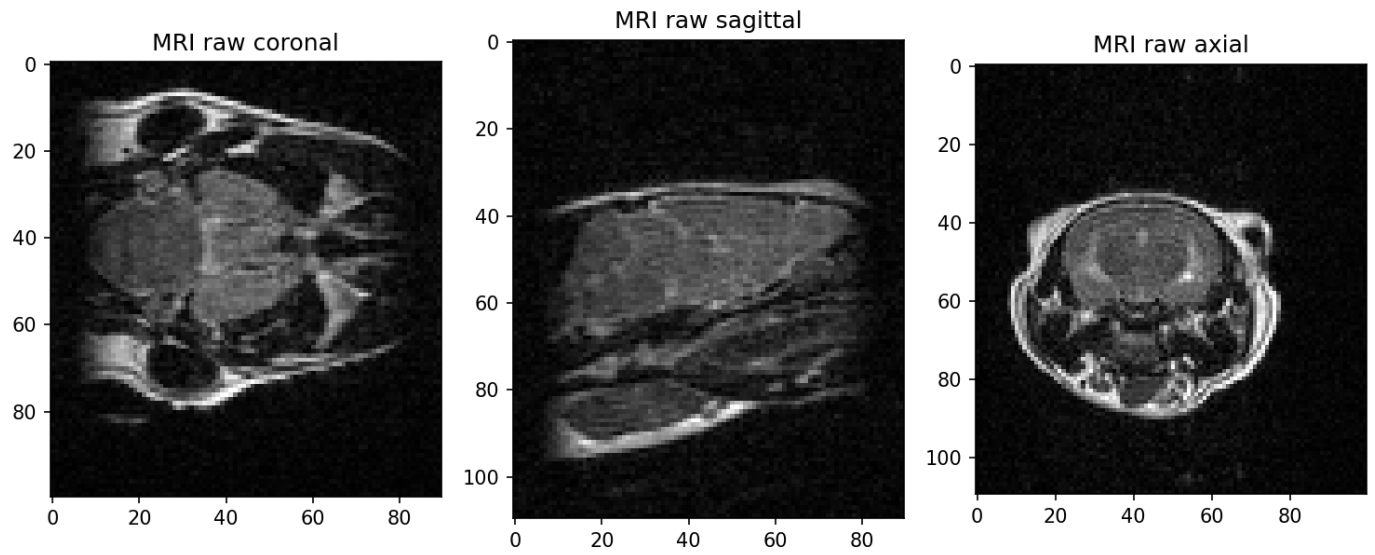


Figure 4.39: Raw MRI image, Timepoint:Week_11, Sequence type: T2

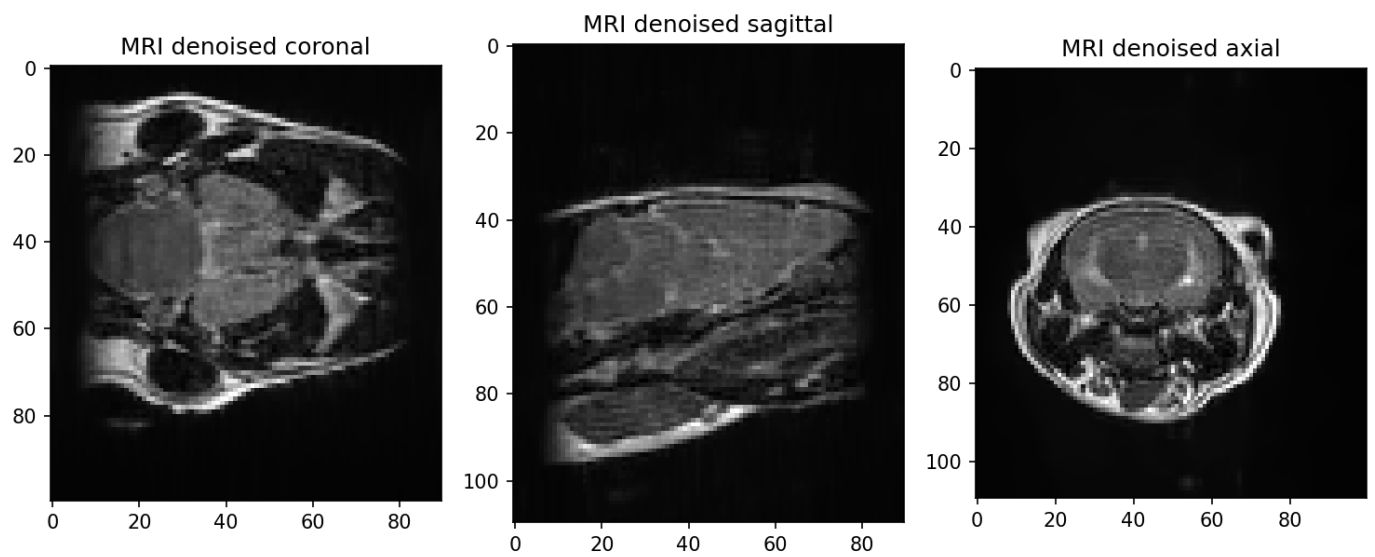


Figure 4.40: Denoised MRI image, Timepoint:Week_11, Sequence type: T2

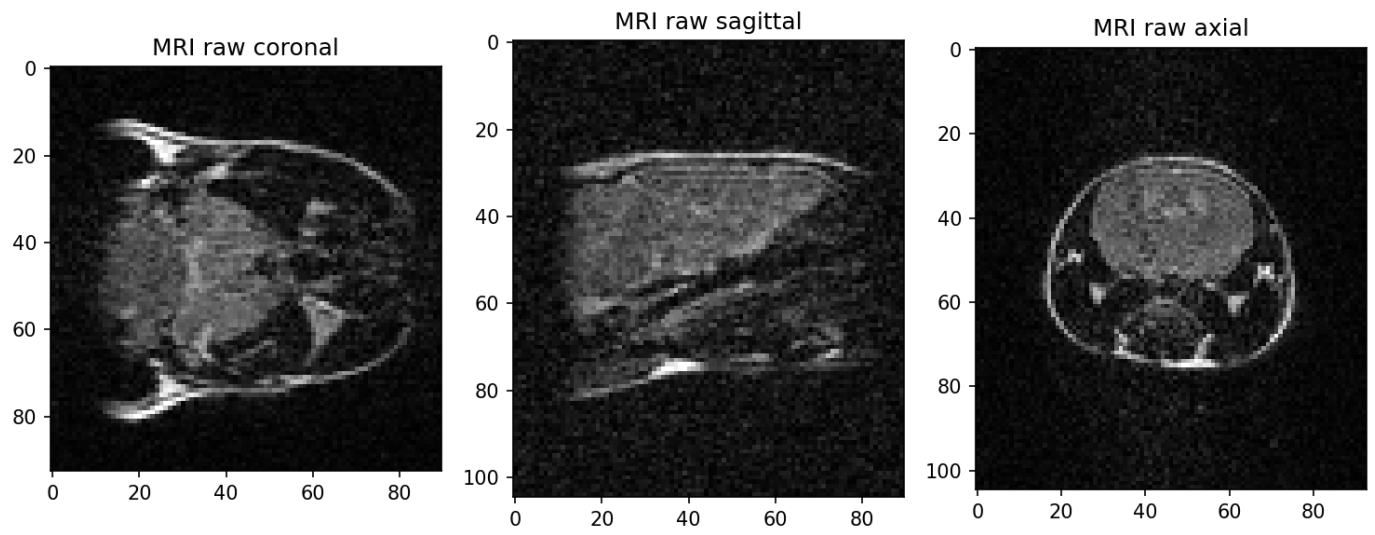


Figure 4.41: Raw MRI image, Timepoint:Week_13, Sequence type: T2

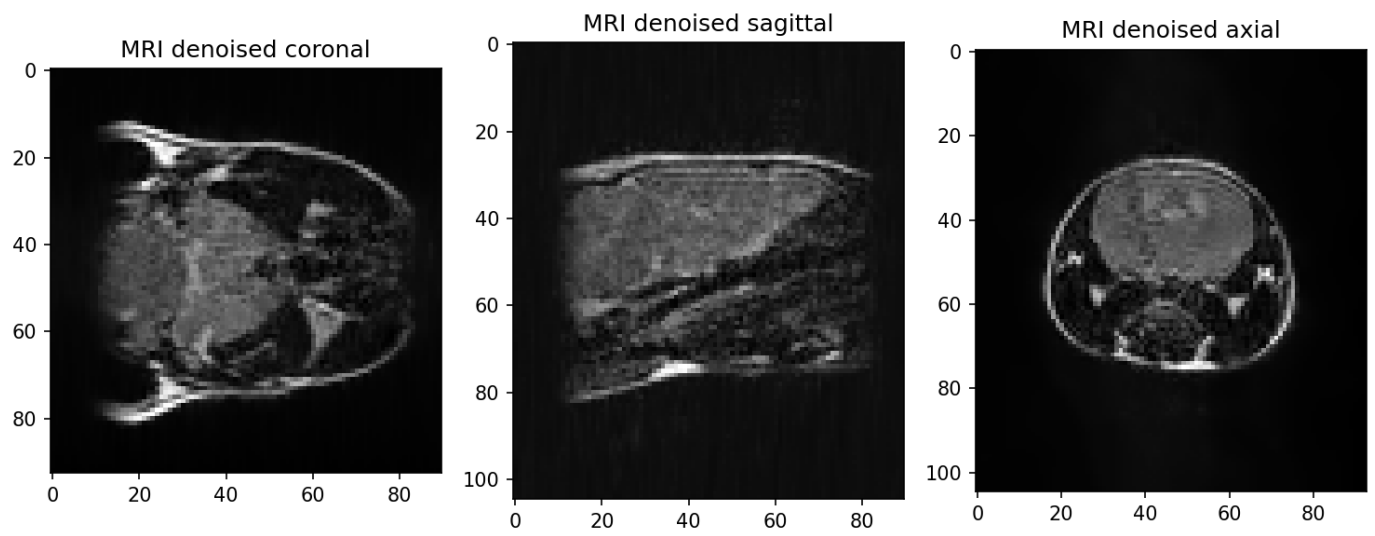


Figure 4.42: Denoised MRI image, Timepoint:Week_13, Sequence type: T2

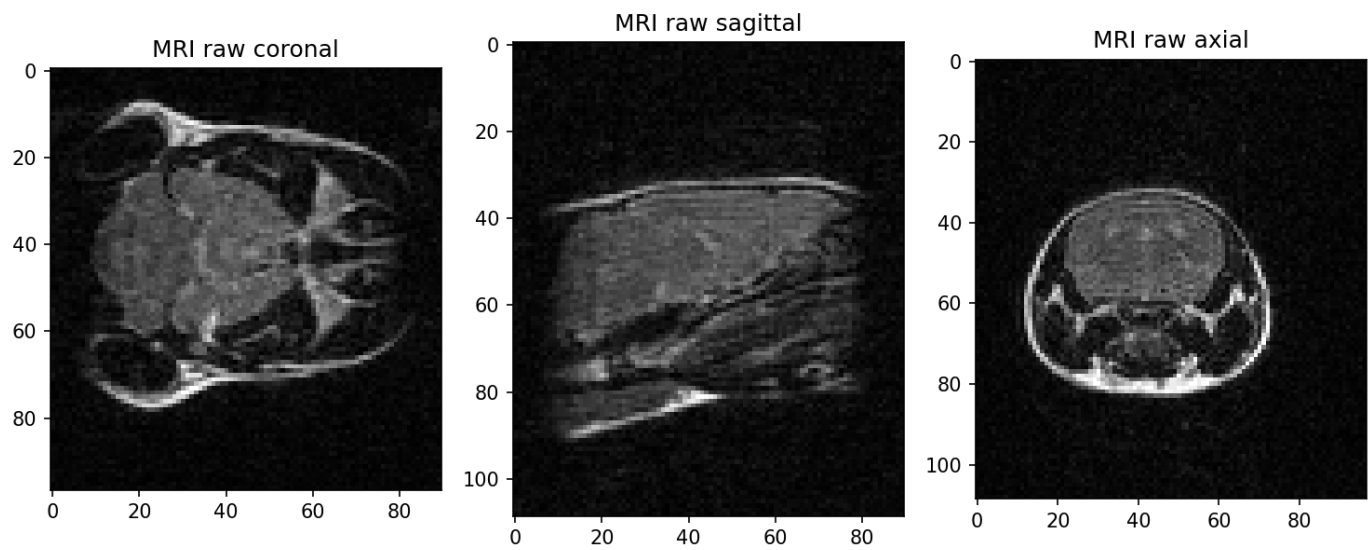


Figure 4.43: Raw MRI image, Timepoint:Week_15, Sequence type: T2

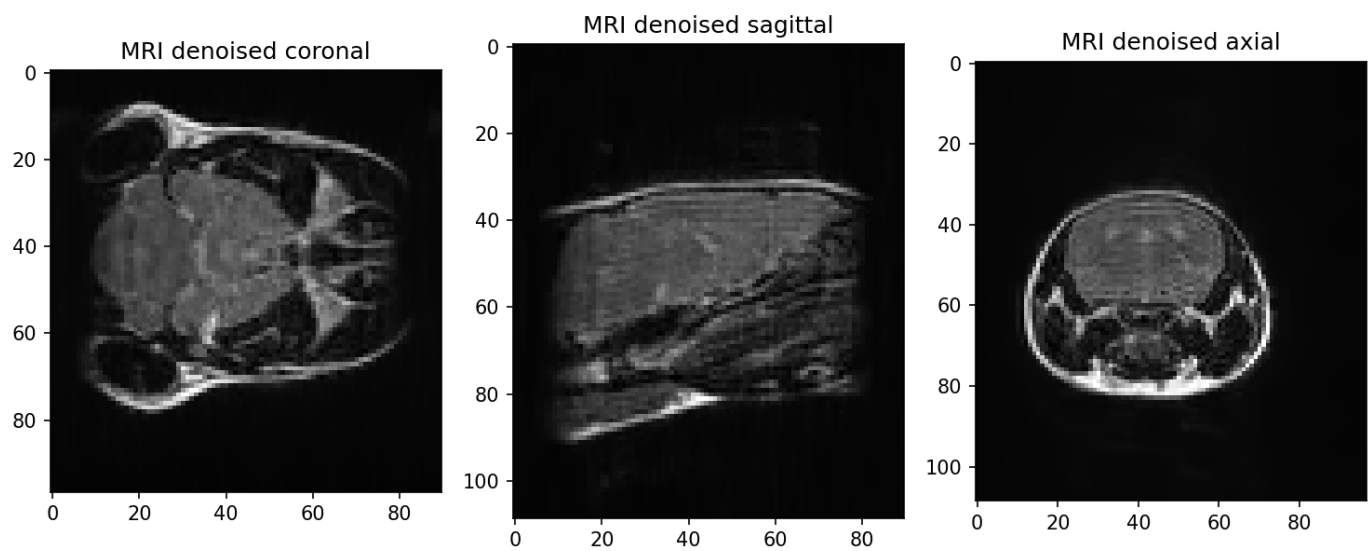


Figure 4.44: Denoised MRI image, Timepoint:Week_15, Sequence type: T2

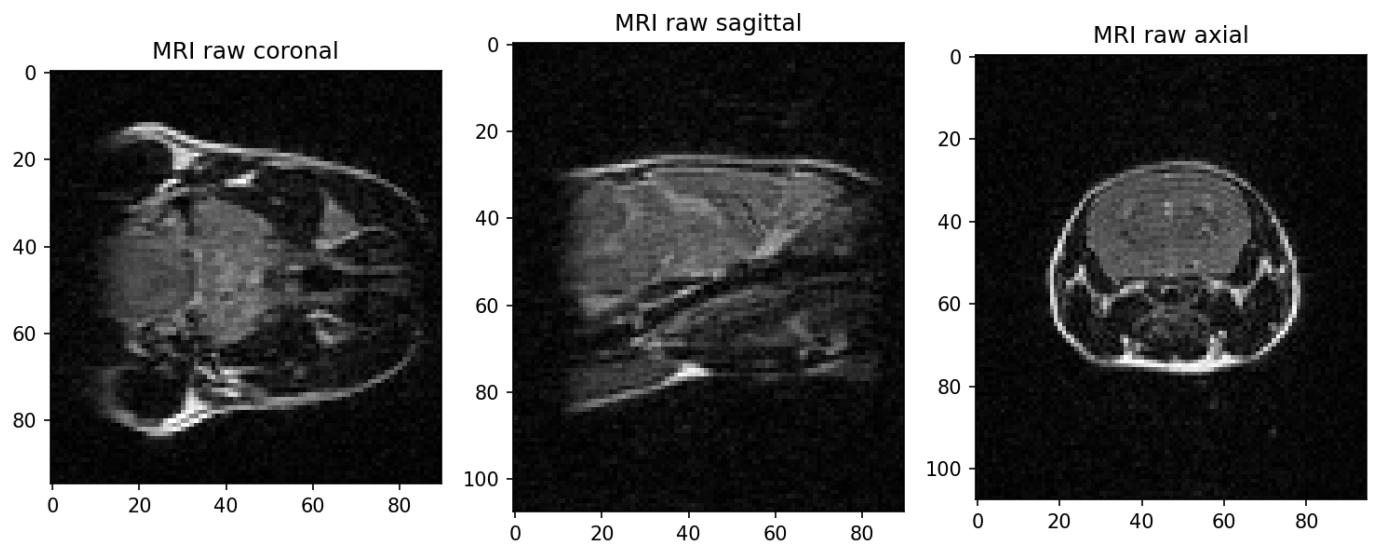


Figure 4.45: Raw MRI image, Timepoint:Week_17, Sequence type: T2

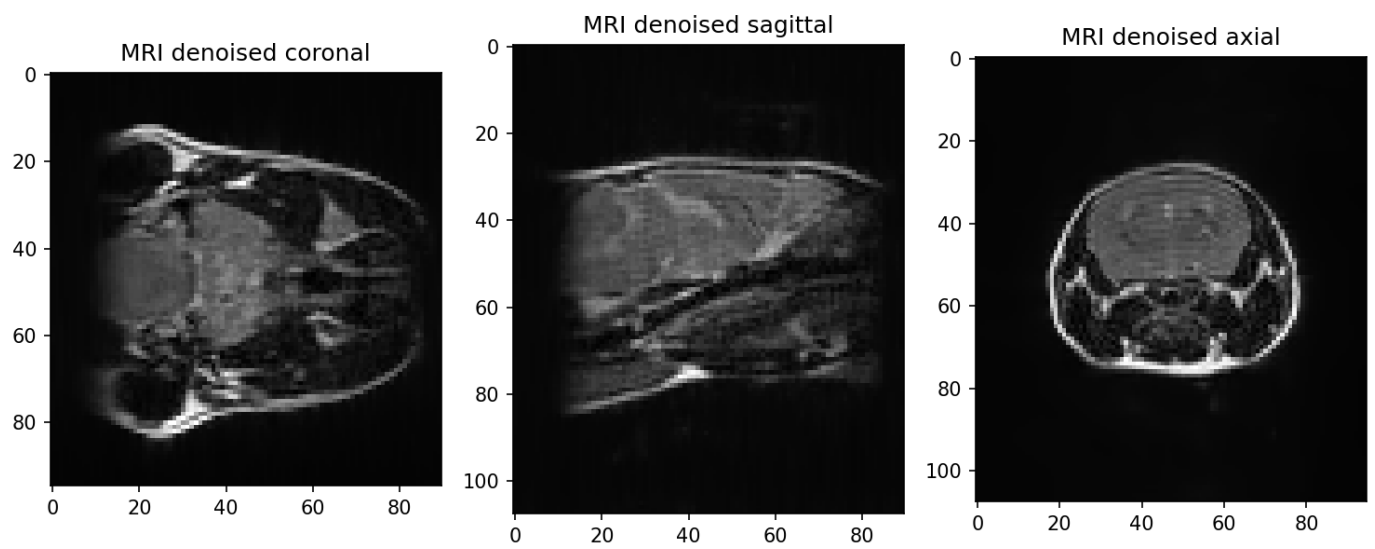


Figure 4.46: Denoised MRI image, Timepoint:Week_17, Sequence type: T2

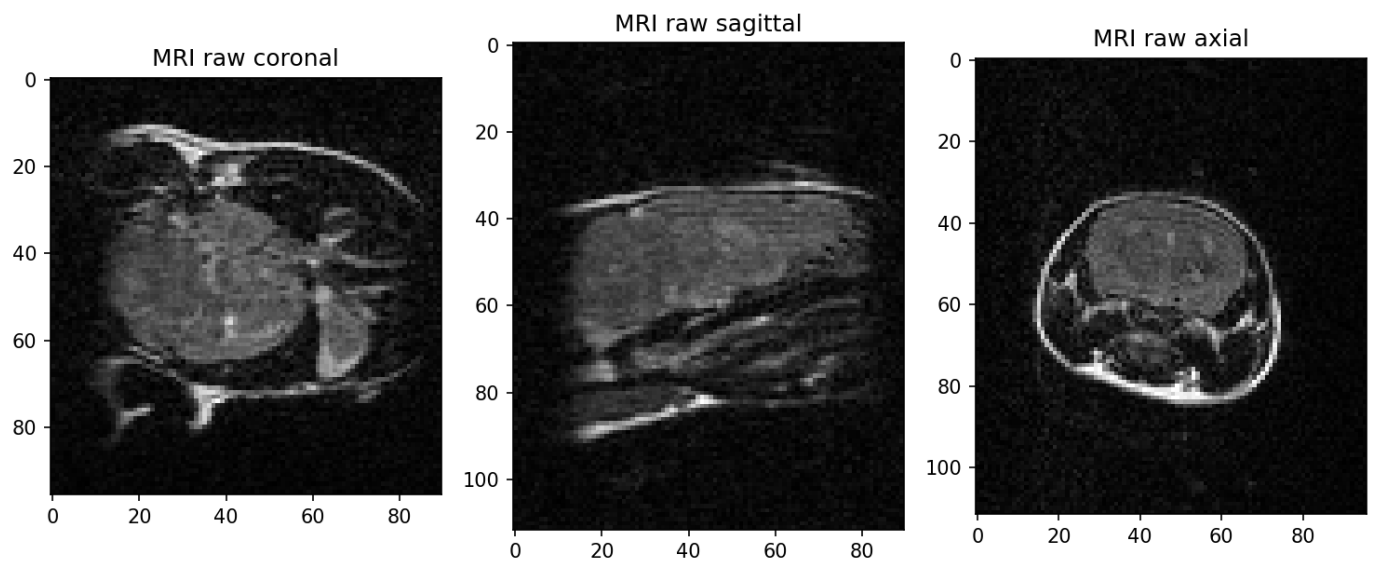


Figure 4.47: Raw MRI image, Timepoint:Week_19, Sequence type: T2

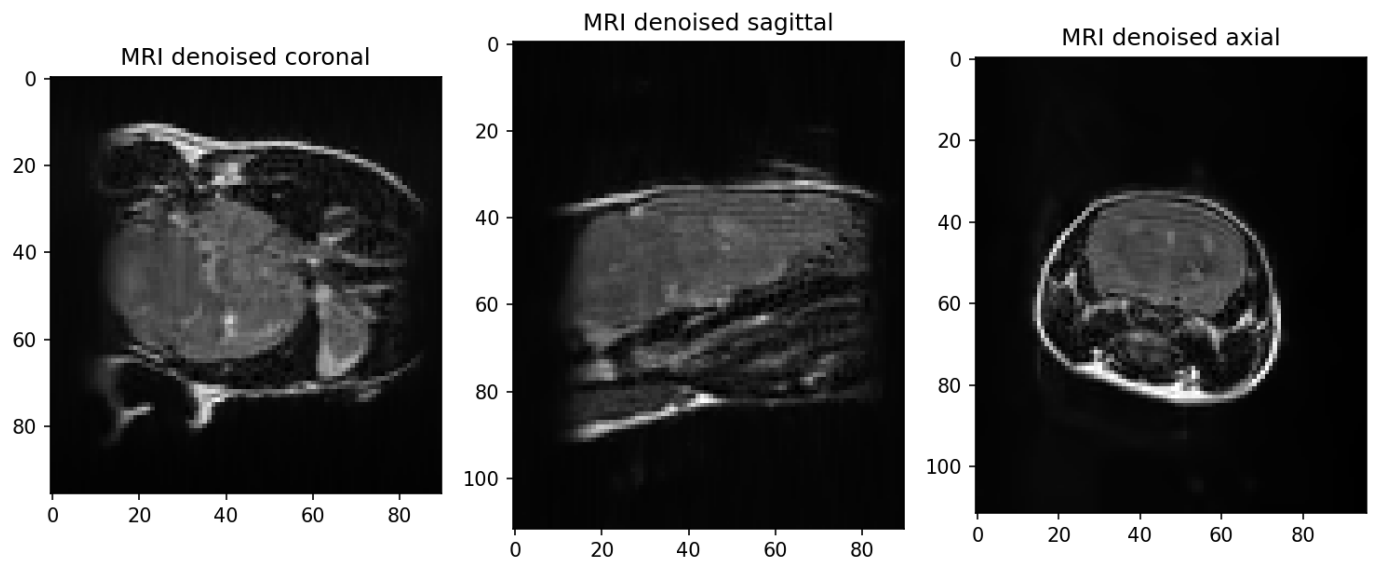


Figure 4.48: Denoised MRI image, Timepoint:Week_19, Sequence type: T2

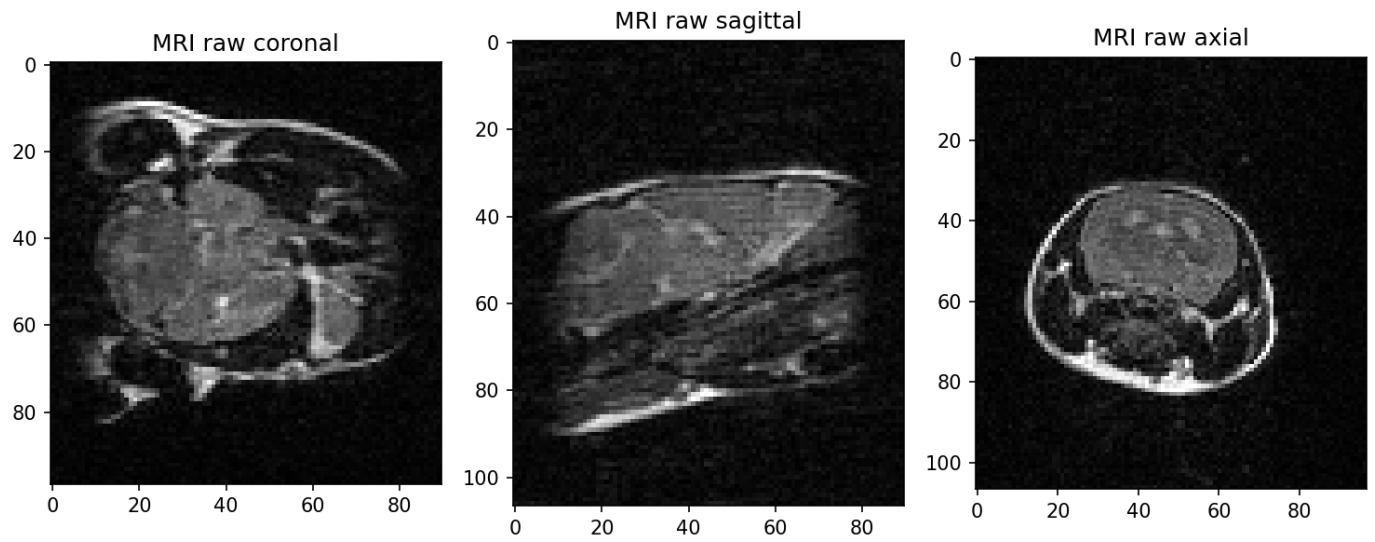


Figure 4.49: Raw MRI image, Timepoint:Week_21, Sequence type: T2

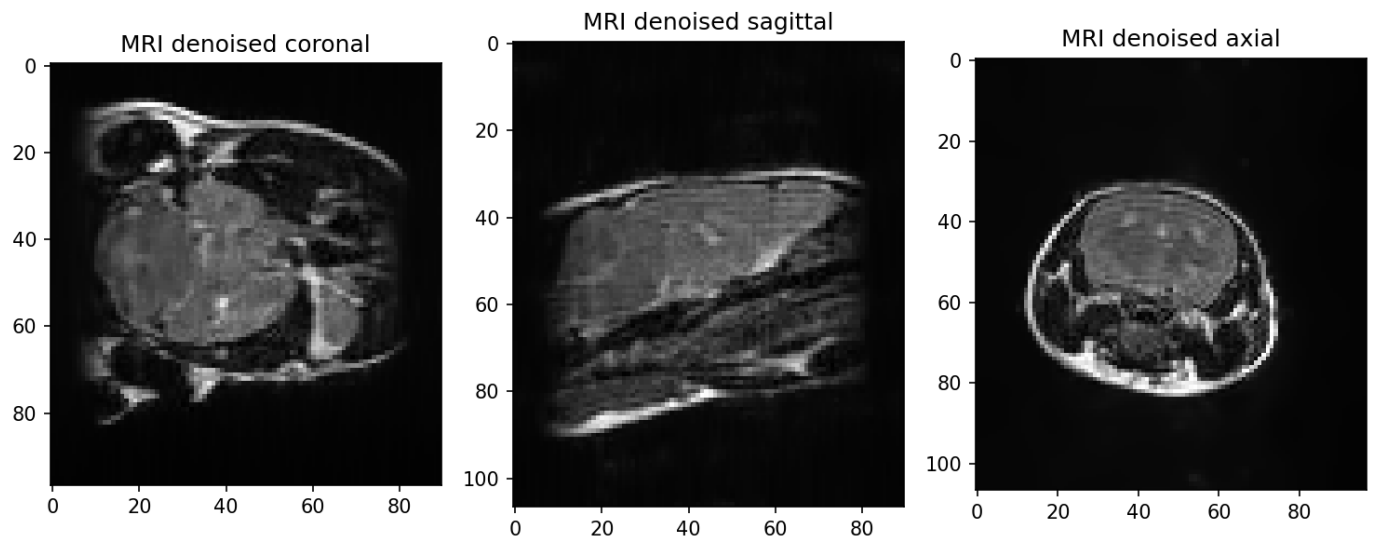


Figure 4.50: Denoised MRI image, Timepoint:Week_21, Sequence type: T2

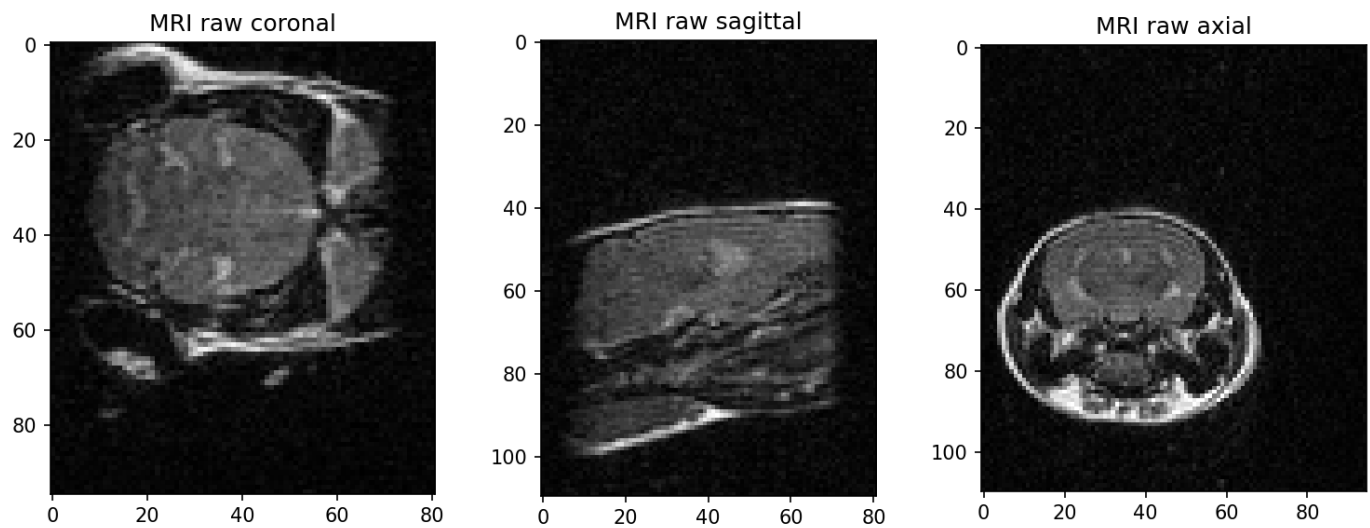


Figure 4.51: Raw MRI image, Timepoint:Week_25, Sequence type: T2

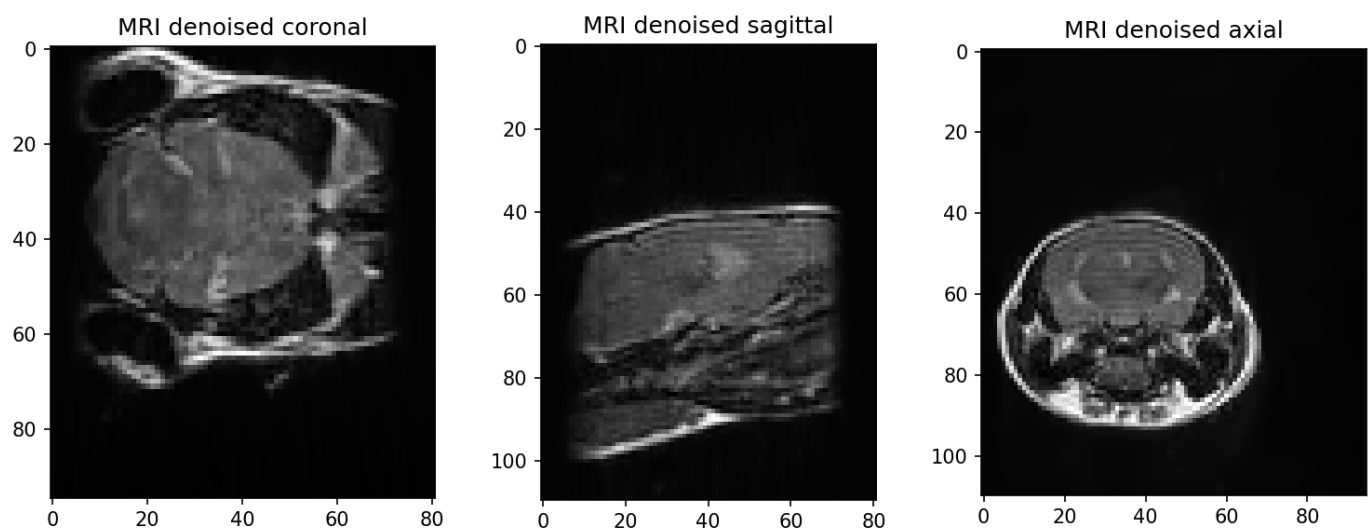


Figure 4.52: Denoised MRI image, Timepoint:Week_25, Sequence type: T2

4.2 Registration (timepoints)

4.2.1 Sequence type: T1

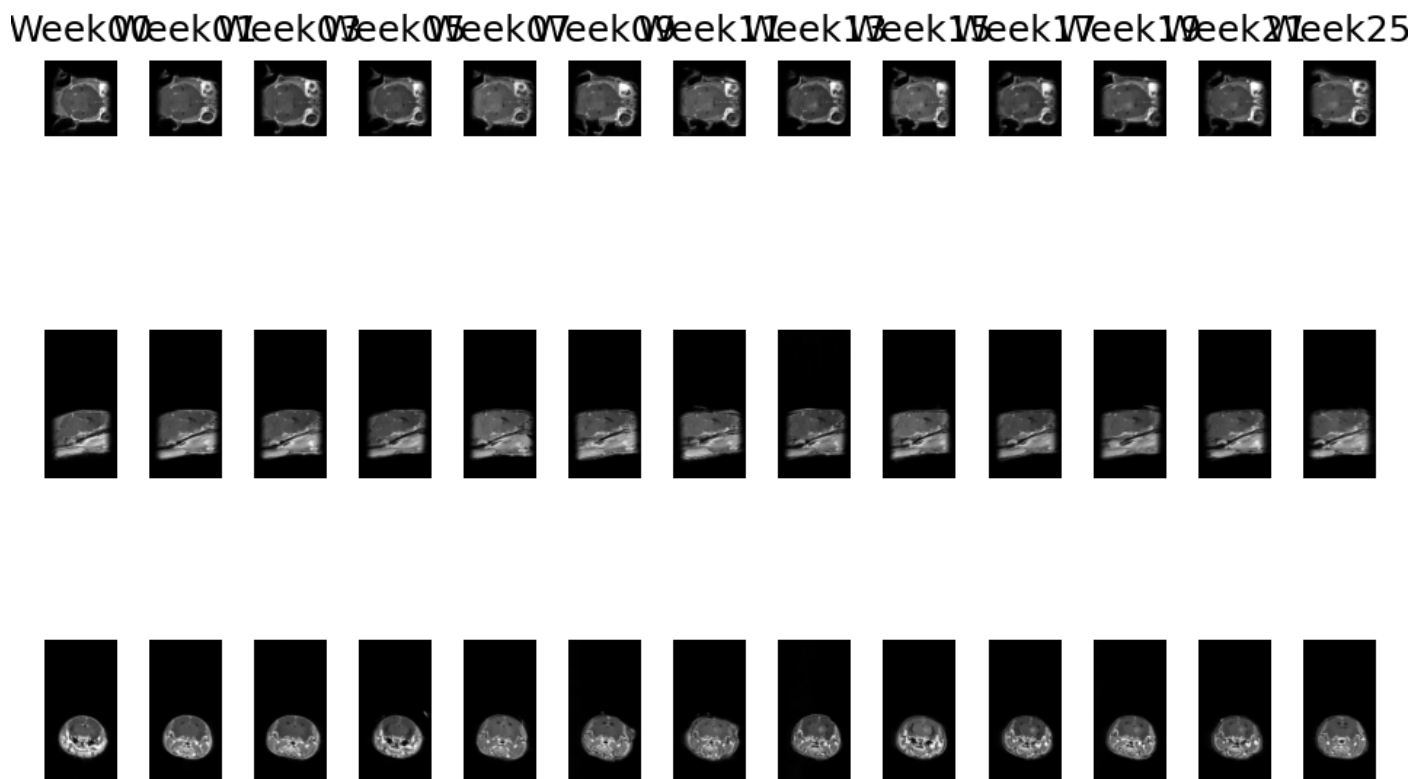


Figure 4.53: Gallery of registered MRI images , Sequence type: T1

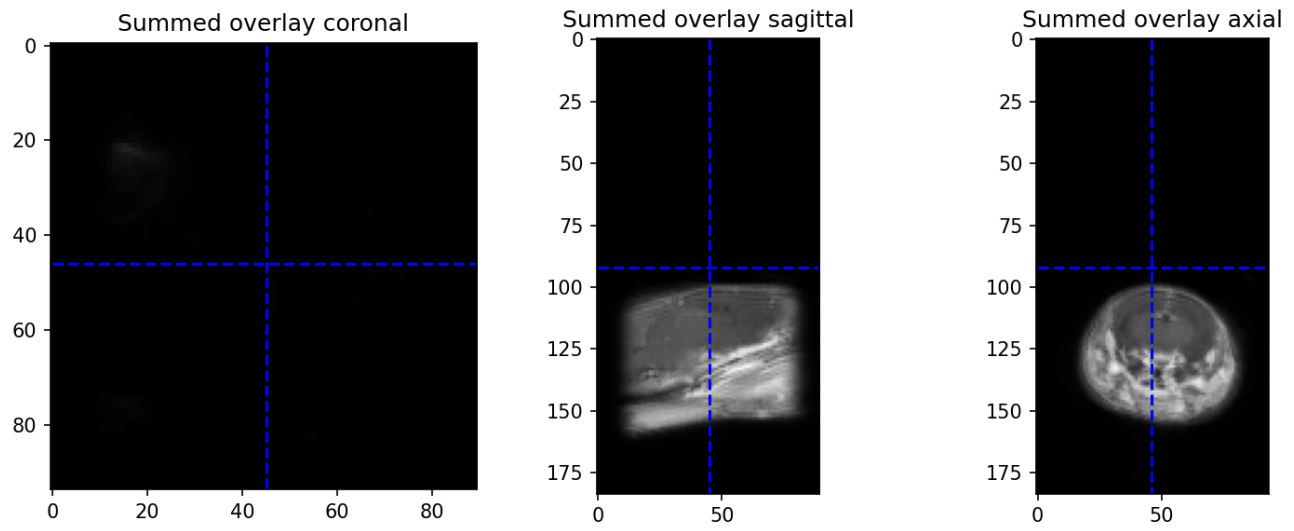


Figure 4.54: Summed overlay of registered MRI images , Sequence type: T1

4.2.2 Sequence type: T2

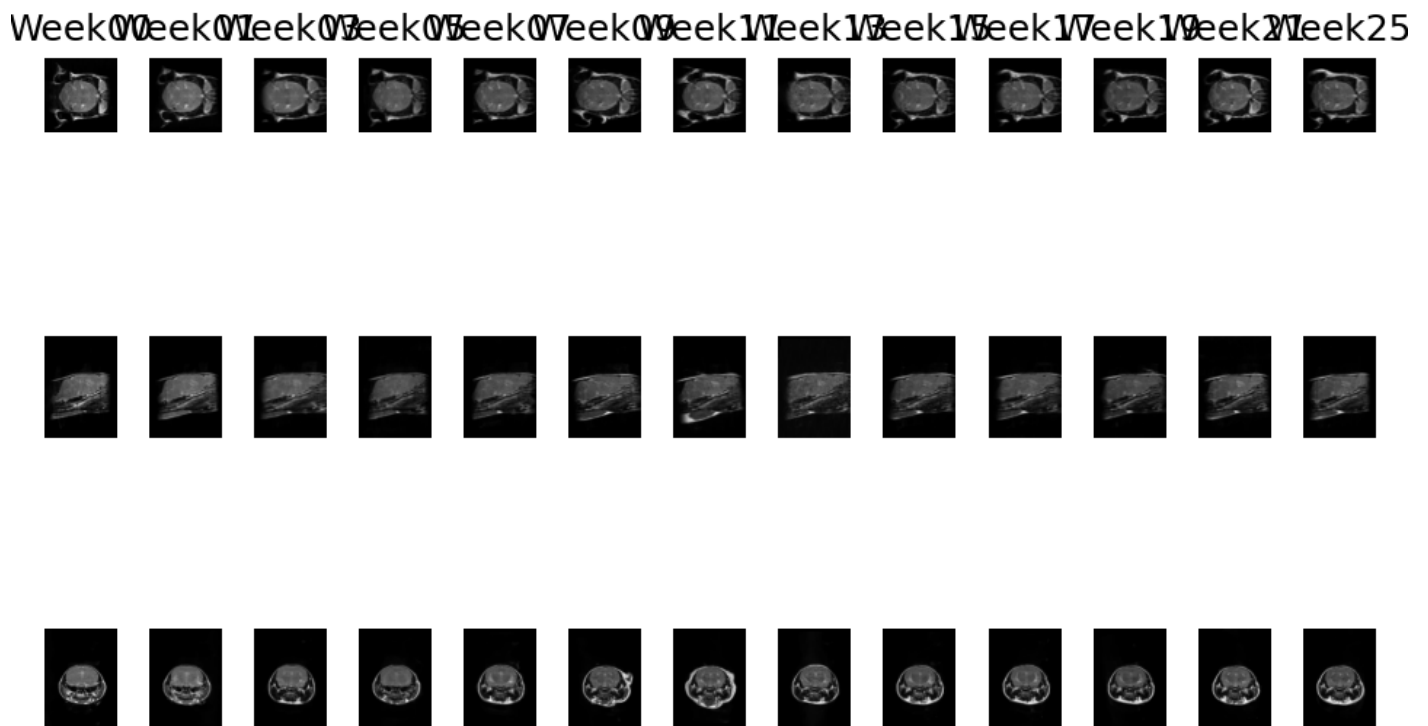


Figure 4.55: Gallery of registered MRI images , Sequence type: T2

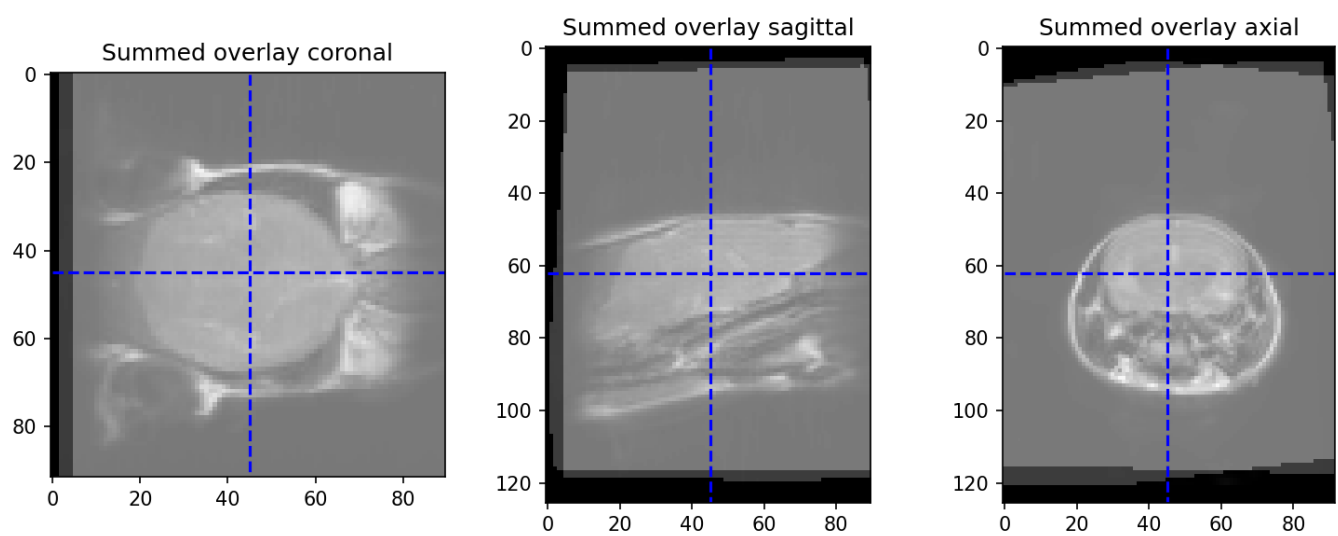


Figure 4.56: Summed overlay of registered MRI images , Sequence type: T2

4.3 Warping to CBCT

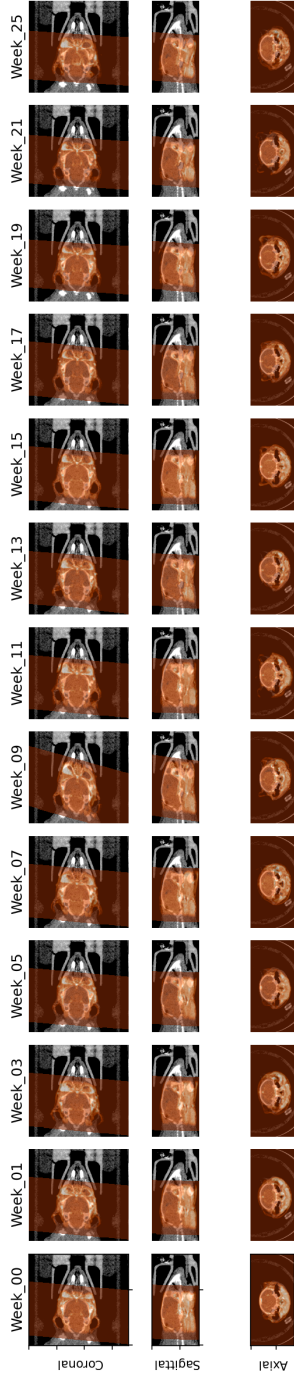


Figure 4.57: Gallery of CBCT (gray) and warped MRI images (orange) , Sequence type: T1

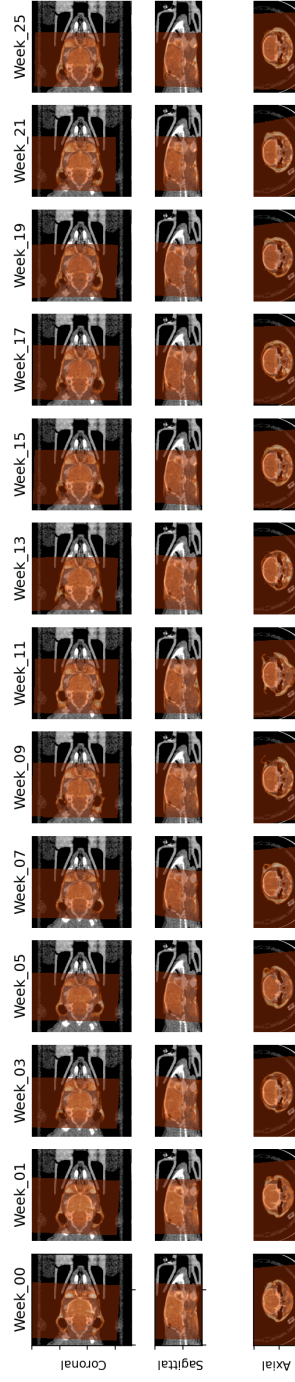


Figure 4.58: Gallery of CBCT (gray) and warped MRI images (orange) , Sequence type: T2

5 Histology image data

5.1 Bundle registration

Number of section locations:30

Stainings for this sample:

- NOK: NeuN, OSP, Ki-67 and DAPI
- GNI: GFAP, Nestin, Iba1 and DAPI
- HE: Hematoxylin & eosin staining

Note: Pairs of histochemical (e.g. HE) and immunofluorescent (e.g. GNI) images are registered with a contour-based technique, whereas pairs of immunofluorescent images (e.g. GNI and NOK) are registered with an intensity-based method. For the latter, the DAPI canal present in all immunofluorescent stainings serves as registration reference and is displayed in this overview.

5.1.1 0001_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0001-Scene-1.czi
- P2-A-C3H-M1_NOK-0001-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0001-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

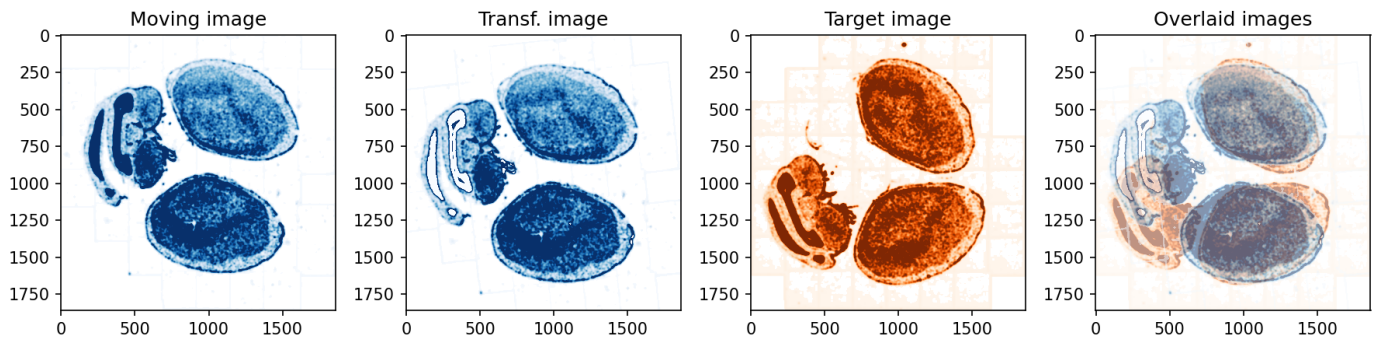


Figure 5.1: Results of registration of image P2-A-C3H-M1_NOK-0001-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0001-Scene-1 (Target image)

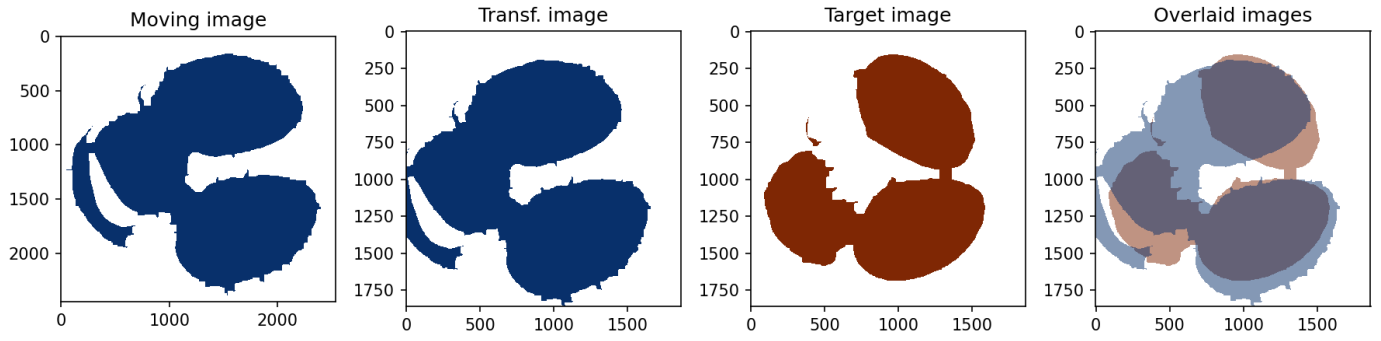


Figure 5.2: Results of registration of image P2A_C3H_M1_HE-0001-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0001-Scene-1 (Target image)

5.1.2 0001_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0001-Scene-2.czi
- P2-A-C3H-M1_NOK-0001-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0001-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

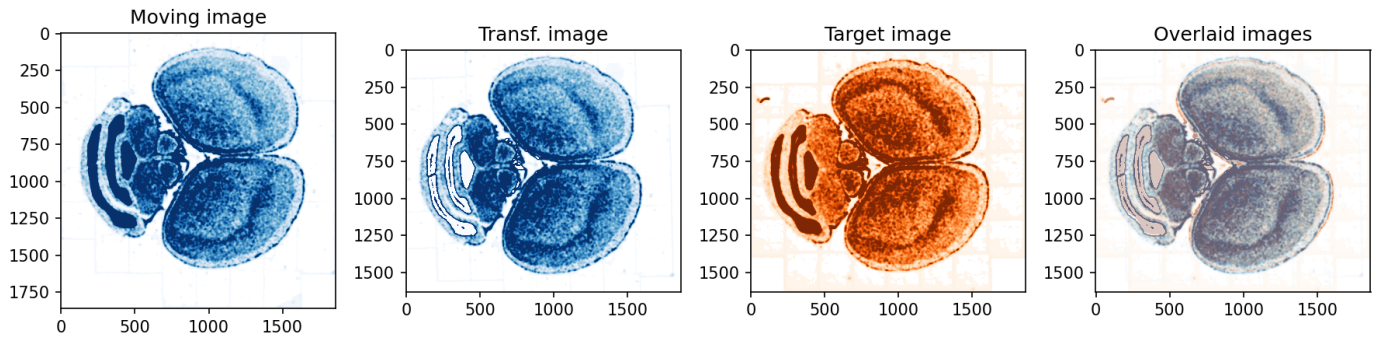


Figure 5.3: Results of registration of image P2-A-C3H-M1_NOK-0001-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0001-Scene-2 (Target image)

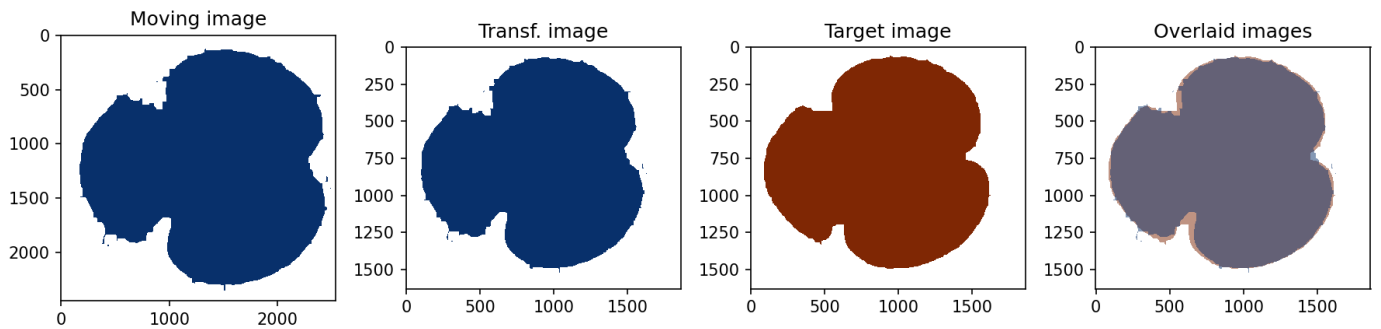


Figure 5.4: Results of registration of image P2A_C3H_M1_HE-0001-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0001-Scene-2 (Target image)

5.1.3 0002_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0002-Scene-1.czi
- P2-A-C3H-M1_NOK-0002-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0002-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

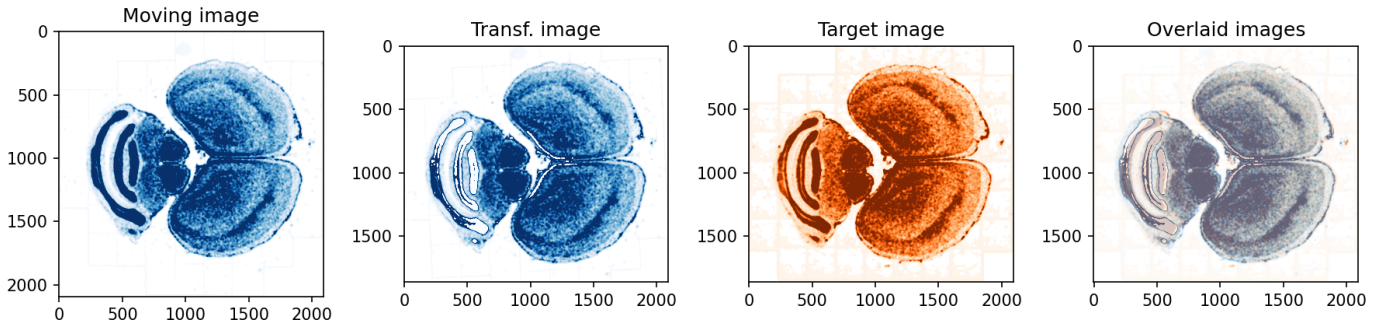


Figure 5.5: Results of registration of image P2-A-C3H-M1_NOK-0002-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0002-Scene-1 (Target image)

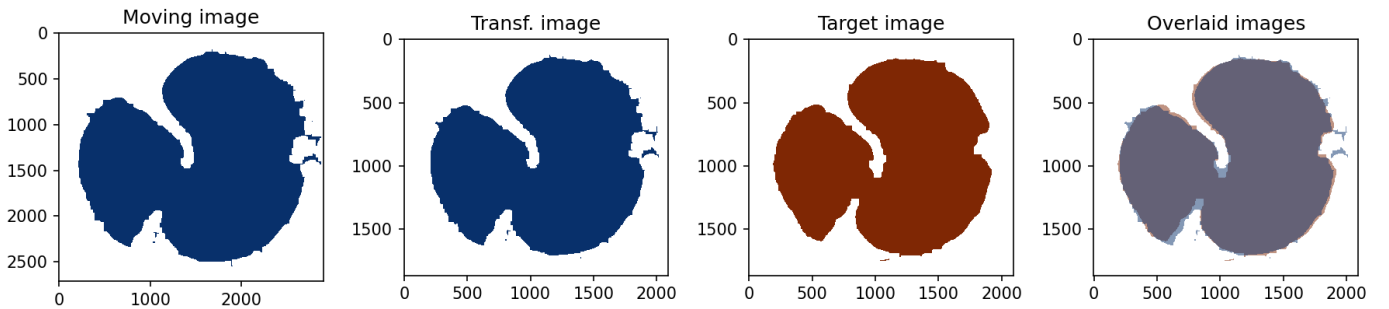


Figure 5.6: Results of registration of image P2A_C3H_M1_HE-0002-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0002-Scene-1 (Target image)

5.1.4 0002_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0002-Scene-2.czi
- P2-A-C3H-M1_NOK-0002-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0002-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

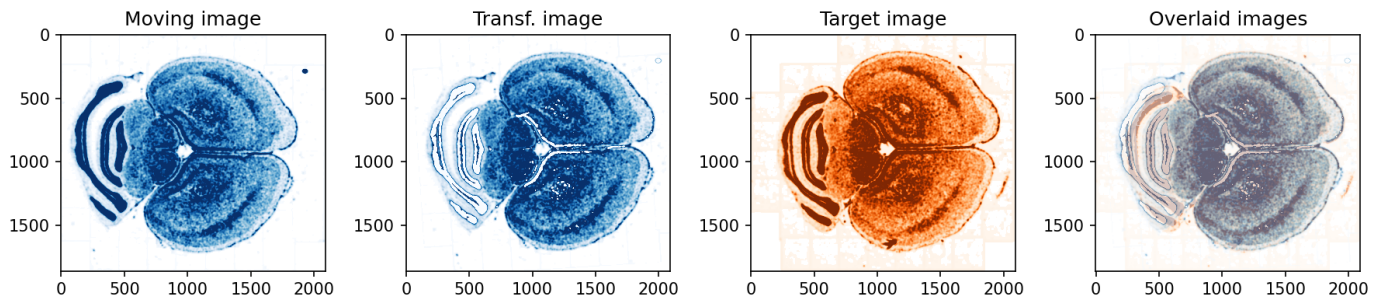


Figure 5.7: Results of registration of image P2-A-C3H-M1_NOK-0002-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0002-Scene-2 (Target image)

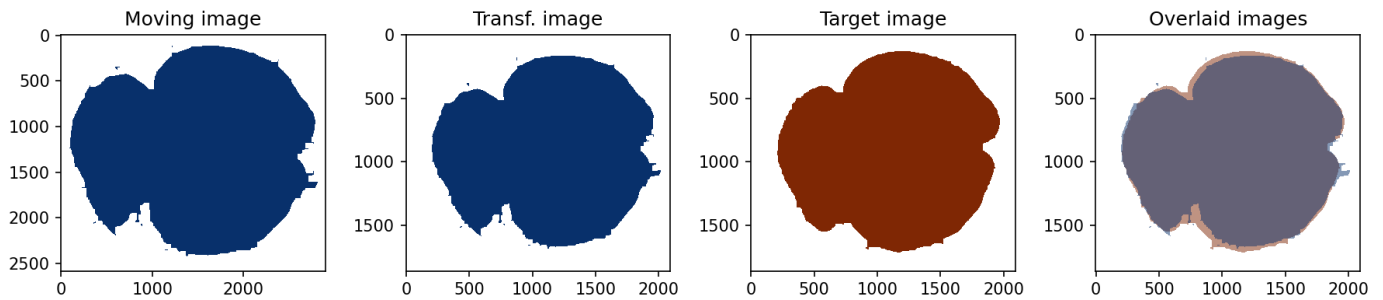


Figure 5.8: Results of registration of image P2A_C3H_M1_HE-0002-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0002-Scene-2 (Target image)

5.1.5 0003_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0003-Scene-1.czi
- P2-A-C3H-M1_NOK-0003-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0003-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

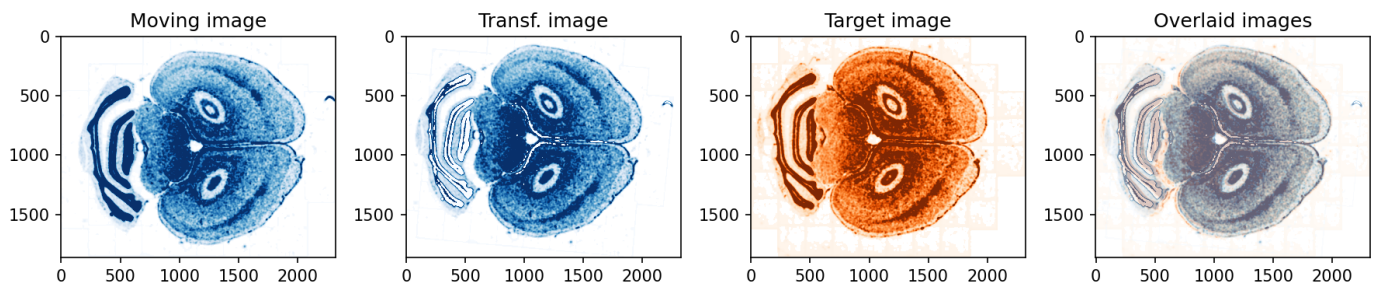


Figure 5.9: Results of registration of image P2-A-C3H-M1_NOK-0003-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0003-Scene-1 (Target image)

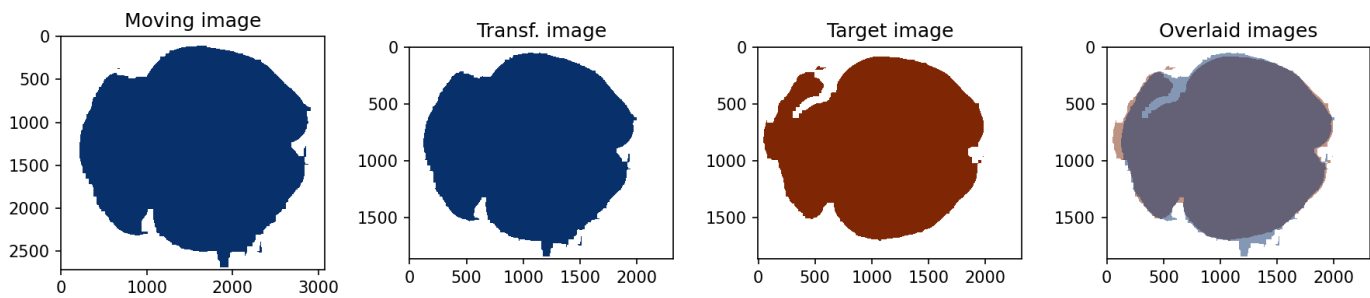


Figure 5.10: Results of registration of image P2A_C3H_M1_HE-0003-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0003-Scene-1 (Target image)

5.1.6 0003_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0003-Scene-2.czi
- P2-A-C3H-M1_NOK-0003-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0003-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

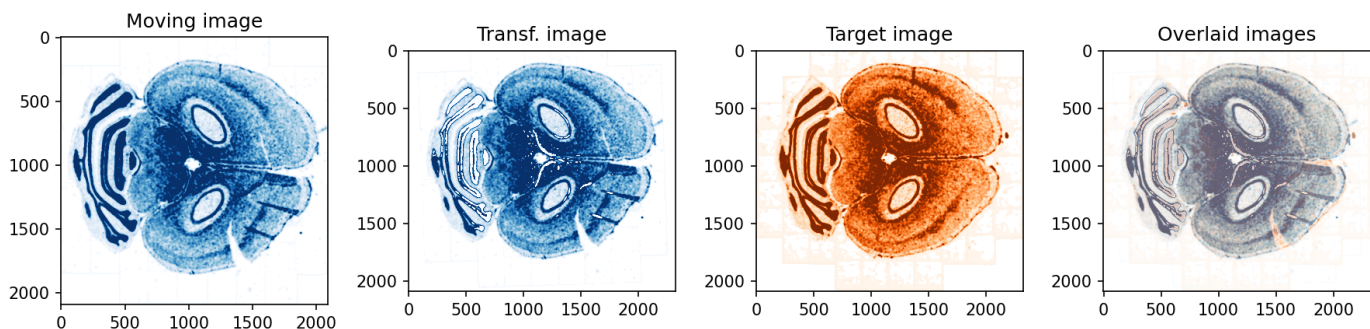


Figure 5.11: Results of registration of image P2-A-C3H-M1_NOK-0003-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0003-Scene-2 (Target image)

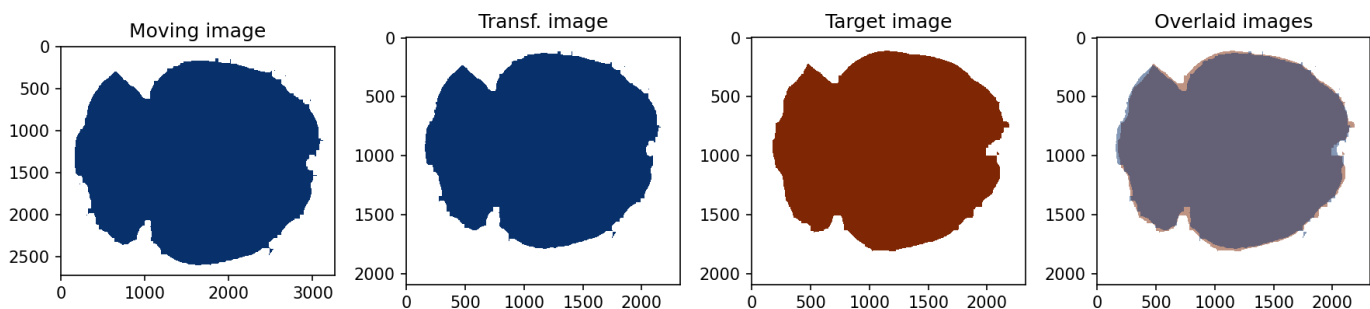


Figure 5.12: Results of registration of image P2A_C3H_M1_HE-0003-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0003-Scene-2 (Target image)

5.1.7 0004_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0004-Scene-1.czi
- P2-A-C3H-M1_NOK-0004-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0004-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

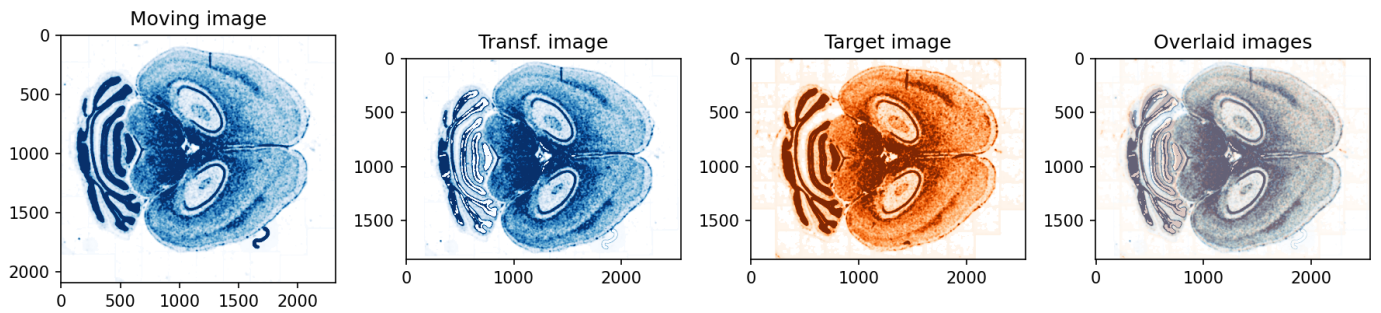


Figure 5.13: Results of registration of image P2-A-C3H-M1_NOK-0004-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0004-Scene-1 (Target image)

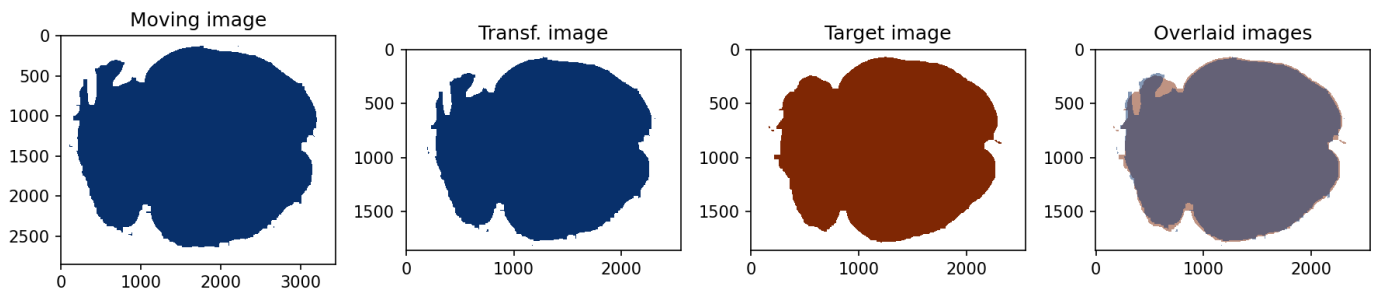


Figure 5.14: Results of registration of image P2A_C3H_M1_HE-0004-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0004-Scene-1 (Target image)

5.1.8 0004_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0004-Scene-2.czi
- P2-A-C3H-M1_NOK-0004-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0004-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

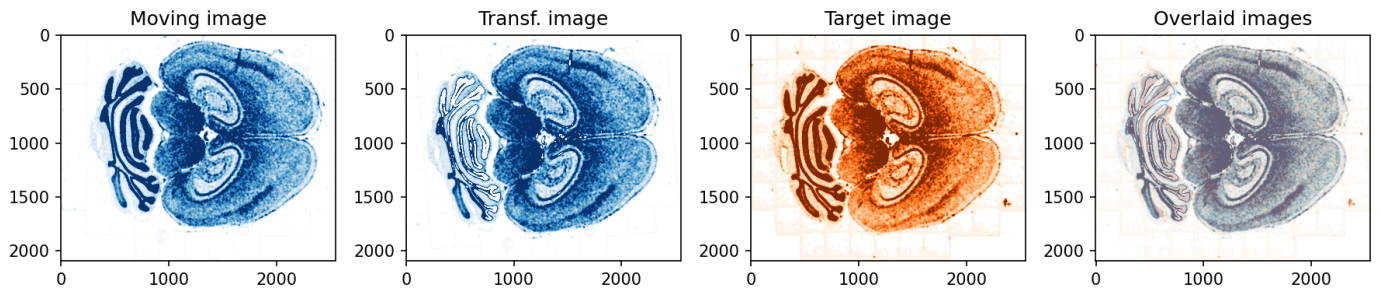


Figure 5.15: Results of registration of image P2-A-C3H-M1_NOK-0004-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0004-Scene-2 (Target image)

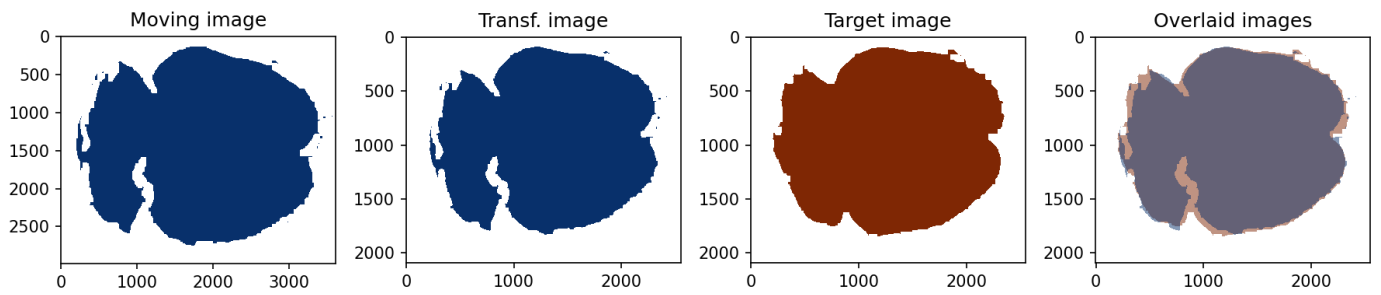


Figure 5.16: Results of registration of image P2A_C3H_M1_HE-0004-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0004-Scene-2 (Target image)

5.1.9 0005_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0005-Scene-1.czi
- P2-A-C3H-M1_NOK-0005-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0005-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

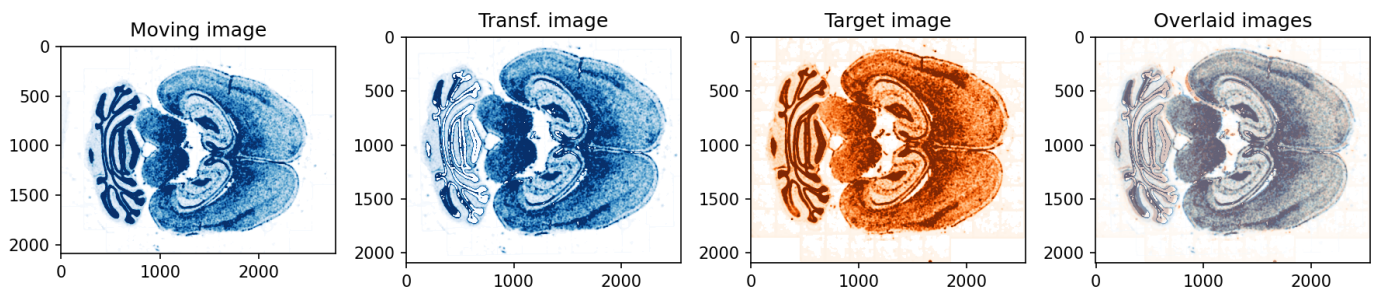


Figure 5.17: Results of registration of image P2-A-C3H-M1_NOK-0005-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0005-Scene-1 (Target image)

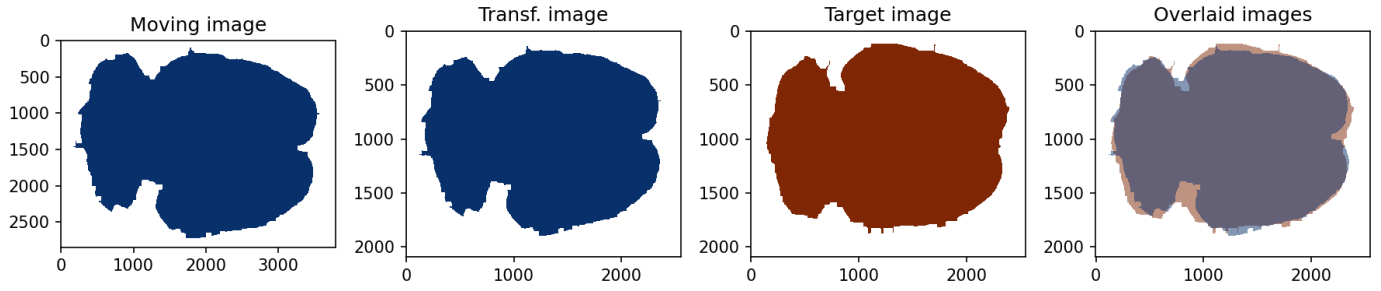


Figure 5.18: Results of registration of image P2A_C3H_M1_HE-0005-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0005-Scene-1 (Target image)

5.1.10 0005_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0005-Scene-2.czi
- P2-A-C3H-M1_NOK-0005-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0005-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

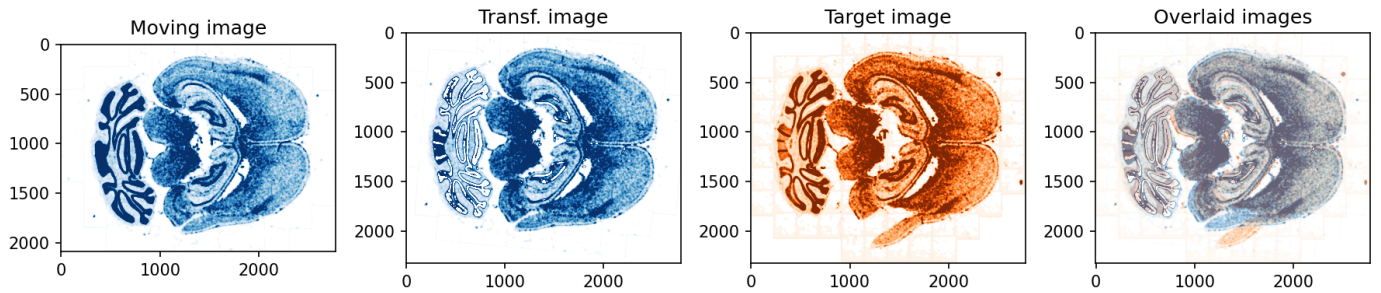


Figure 5.19: Results of registration of image P2-A-C3H-M1_NOK-0005-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0005-Scene-2 (Target image)

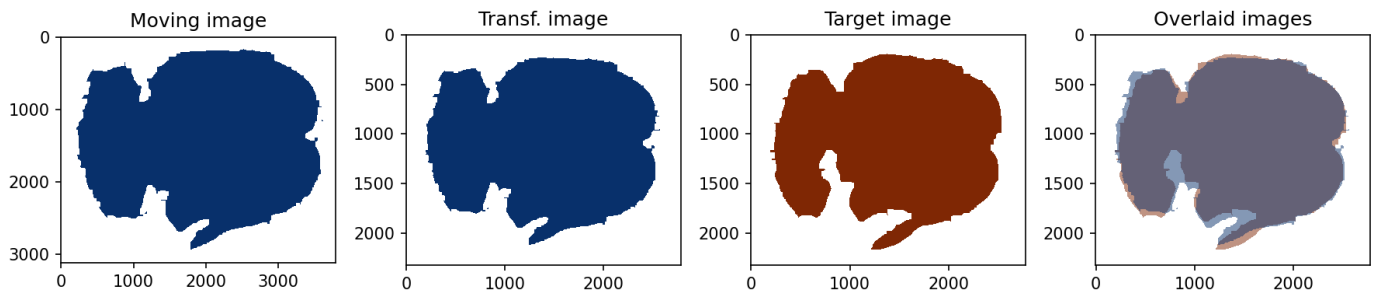


Figure 5.20: Results of registration of image P2A_C3H_M1_HE-0005-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0005-Scene-2 (Target image)

5.1.11 0006_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0006-Scene-1.czi
- P2-A-C3H-M1_NOK-0006-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0006-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

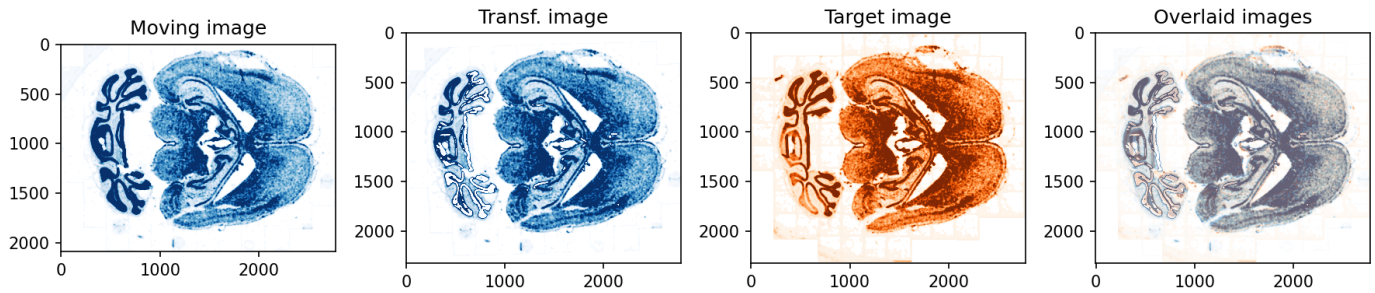


Figure 5.21: Results of registration of image P2-A-C3H-M1_NOK-0006-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0006-Scene-1 (Target image)

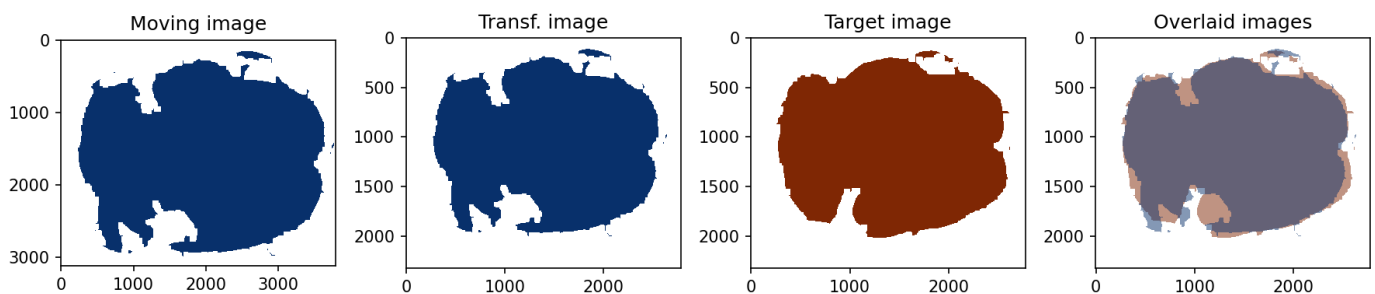


Figure 5.22: Results of registration of image P2A_C3H_M1_HE-0006-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0006-Scene-1 (Target image)

5.1.12 0006_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0006-Scene-2.czi
- P2-A-C3H-M1_NOK-0006-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0006-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

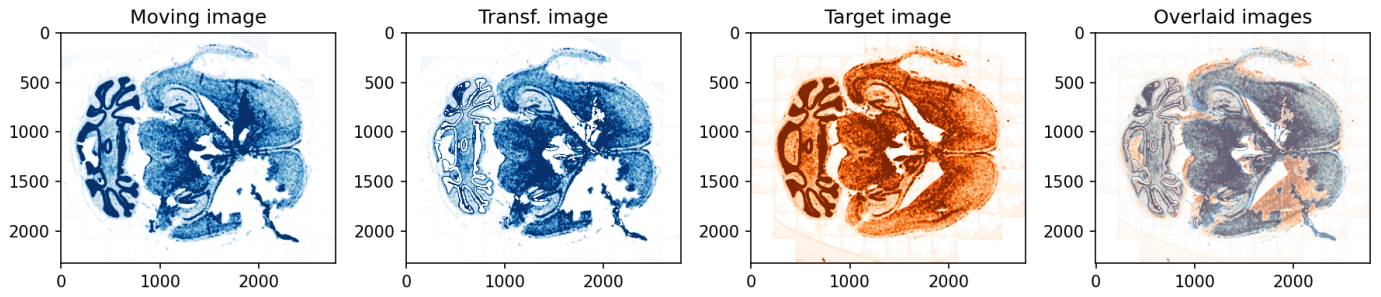


Figure 5.23: Results of registration of image P2-A-C3H-M1_NOK-0006-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0006-Scene-2 (Target image)

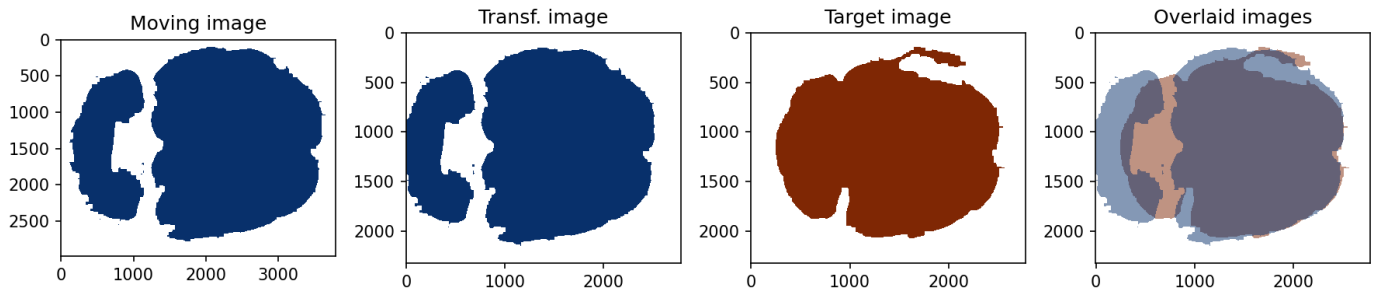


Figure 5.24: Results of registration of image P2A_C3H_M1_HE-0006-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0006-Scene-2 (Target image)

5.1.13 0007_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0007-Scene-1.czi
- P2-A-C3H-M1_NOK-0007-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0007-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

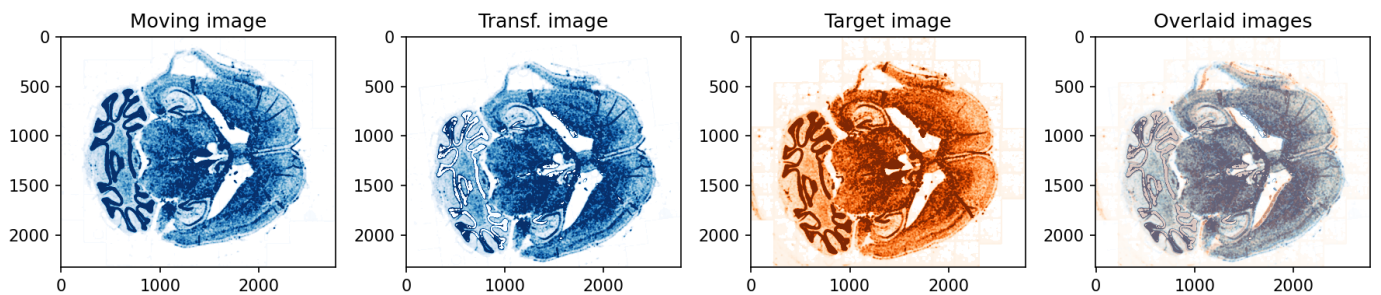


Figure 5.25: Results of registration of image P2-A-C3H-M1_NOK-0007-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0007-Scene-1 (Target image)

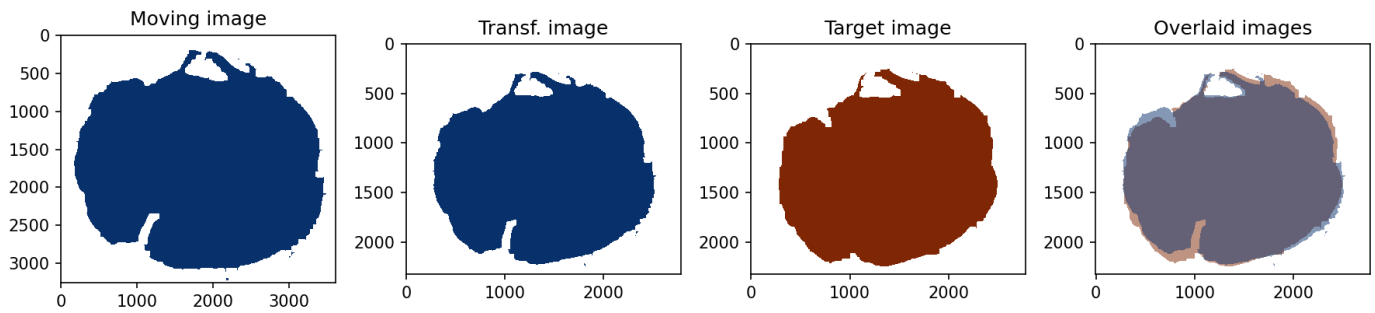


Figure 5.26: Results of registration of image P2A_C3H_M1_HE-0007-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0007-Scene-1 (Target image)

5.1.14 0007_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0007-Scene-2.czi
- P2-A-C3H-M1_NOK-0007-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0007-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

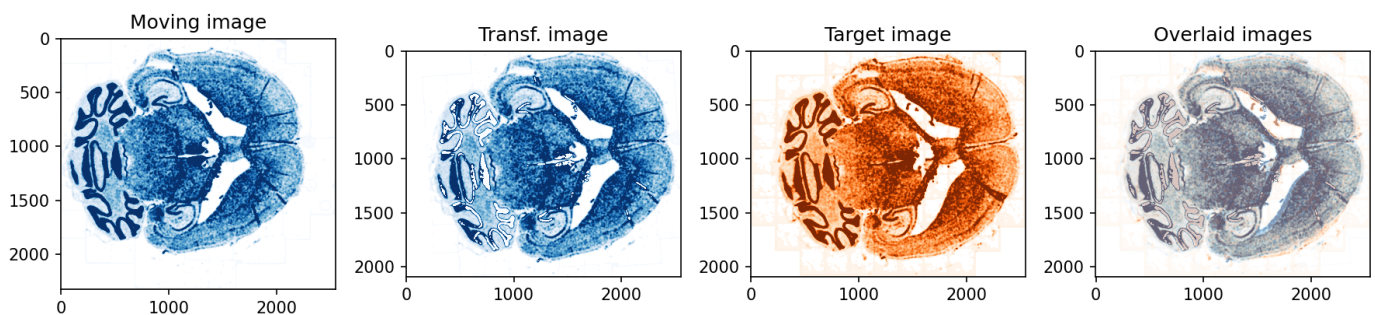


Figure 5.27: Results of registration of image P2-A-C3H-M1_NOK-0007-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0007-Scene-2 (Target image)

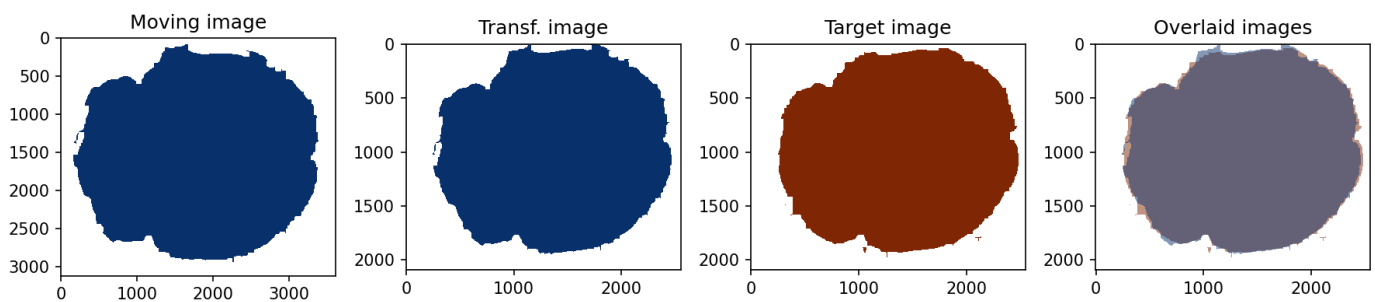


Figure 5.28: Results of registration of image P2A_C3H_M1_HE-0007-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0007-Scene-2 (Target image)

5.1.15 0008_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0008-Scene-1.czi
- P2-A-C3H-M1_NOK-0008-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0008-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

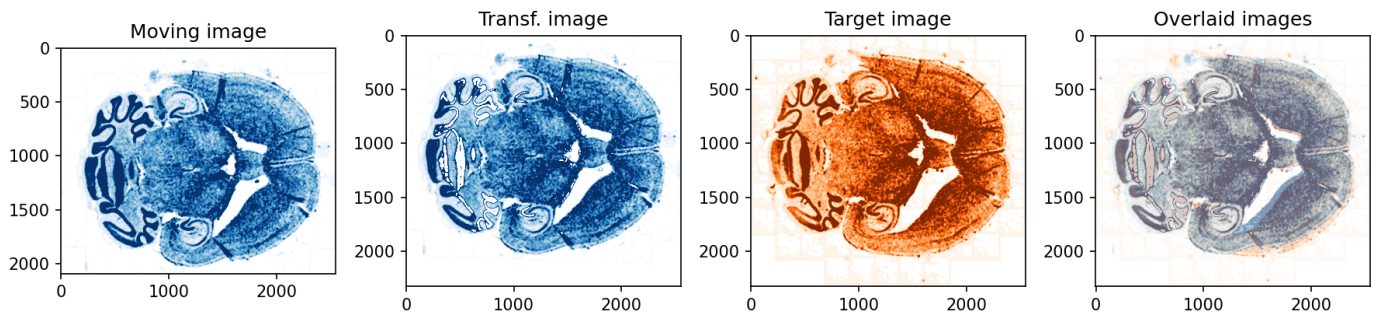


Figure 5.29: Results of registration of image P2-A-C3H-M1_NOK-0008-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0008-Scene-1 (Target image)

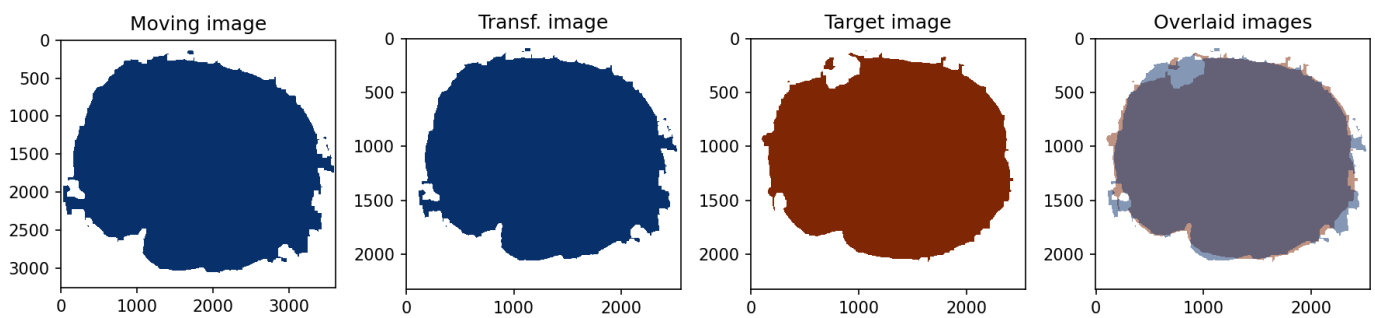


Figure 5.30: Results of registration of image P2A_C3H_M1_HE-0008-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0008-Scene-1 (Target image)

5.1.16 0008_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0008-Scene-2.czi
- P2-A-C3H-M1_NOK-0008-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0008-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

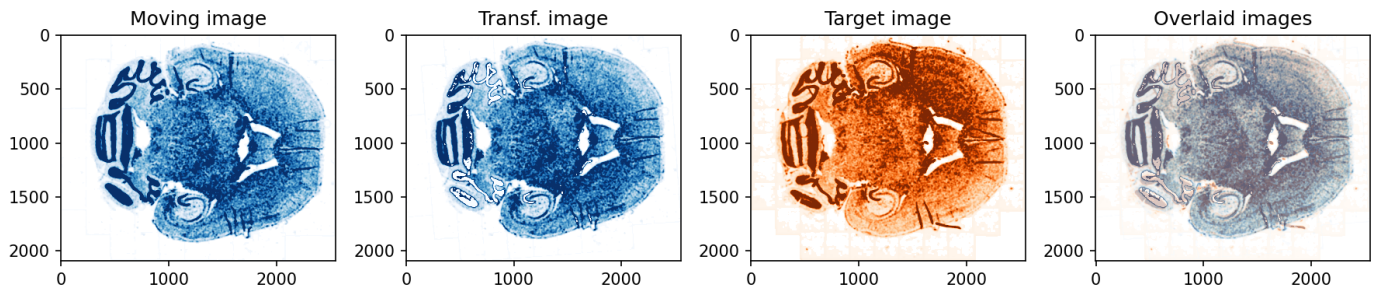


Figure 5.31: Results of registration of image P2-A-C3H-M1_NOK-0008-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0008-Scene-2 (Target image)

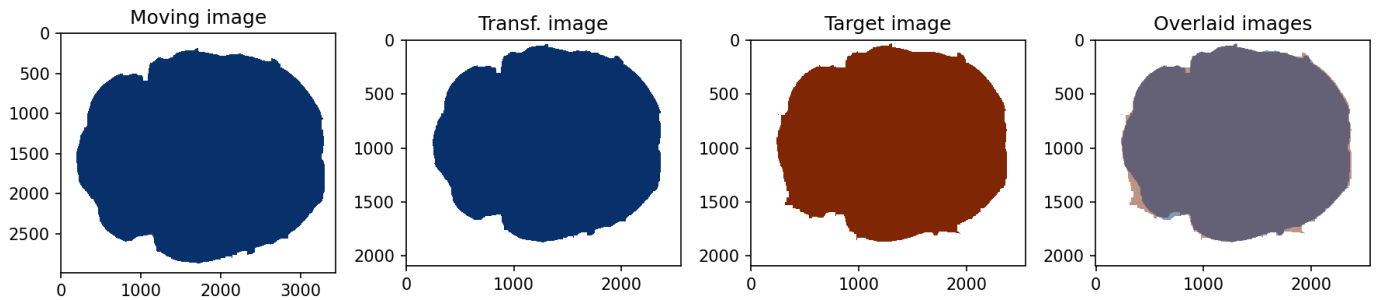


Figure 5.32: Results of registration of image P2A_C3H_M1_HE-0008-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0008-Scene-2 (Target image)

5.1.17 0009_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0009-Scene-1.czi
- P2-A-C3H-M1_NOK-0009-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0009-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

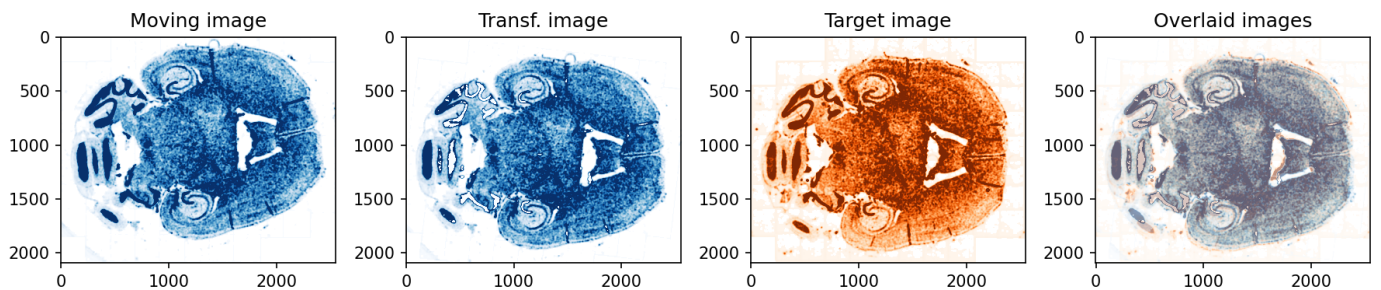


Figure 5.33: Results of registration of image P2-A-C3H-M1_NOK-0009-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0009-Scene-1 (Target image)

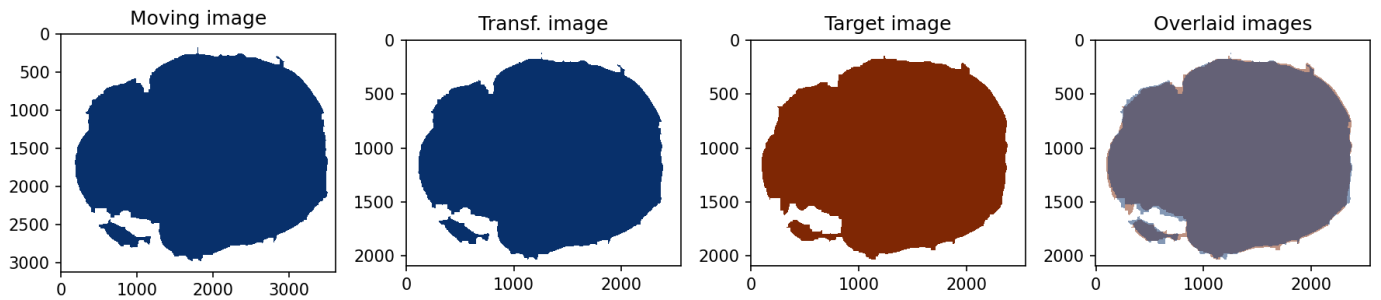


Figure 5.34: Results of registration of image P2A_C3H_M1_HE-0009-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0009-Scene-1 (Target image)

5.1.18 0009_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0009-Scene-2.czi
- P2-A-C3H-M1_NOK-0009-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0009-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

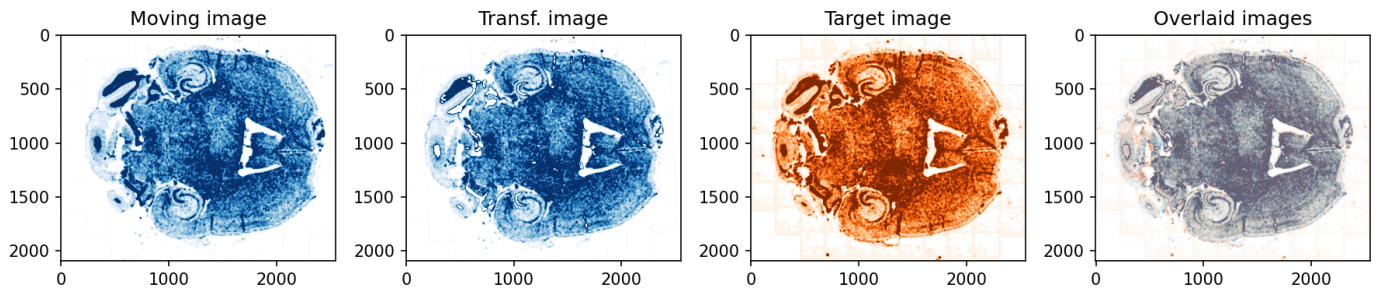


Figure 5.35: Results of registration of image P2-A-C3H-M1_NOK-0009-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0009-Scene-2 (Target image)

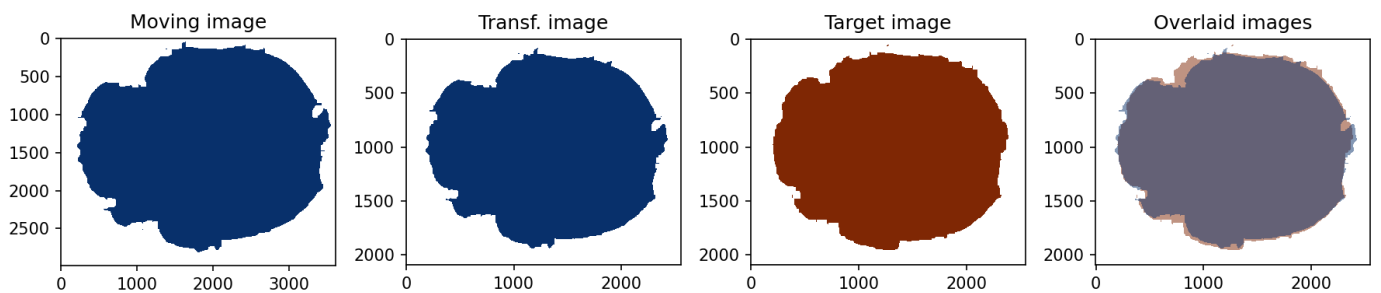


Figure 5.36: Results of registration of image P2A_C3H_M1_HE-0009-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0009-Scene-2 (Target image)

5.1.19 0010_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0010-Scene-1.czi
- P2-A-C3H-M1_NOK-0010-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0010-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

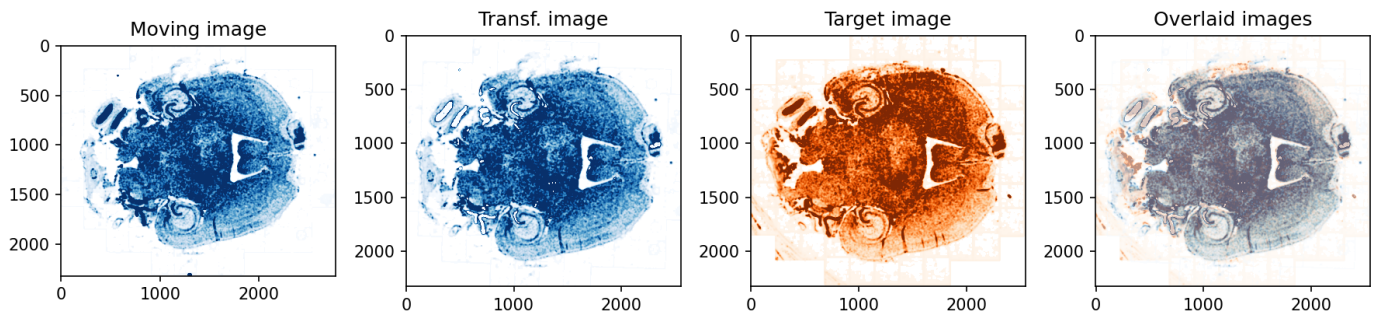


Figure 5.37: Results of registration of image P2-A-C3H-M1_NOK-0010-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0010-Scene-1 (Target image)

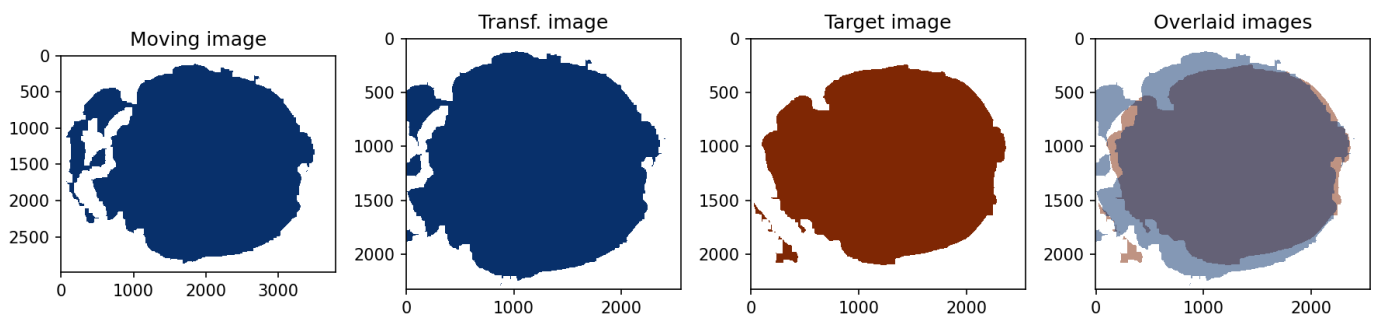


Figure 5.38: Results of registration of image P2A_C3H_M1_HE-0010-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0010-Scene-1 (Target image)

5.1.20 0010_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0010-Scene-2.czi
- P2-A-C3H-M1_NOK-0010-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0010-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

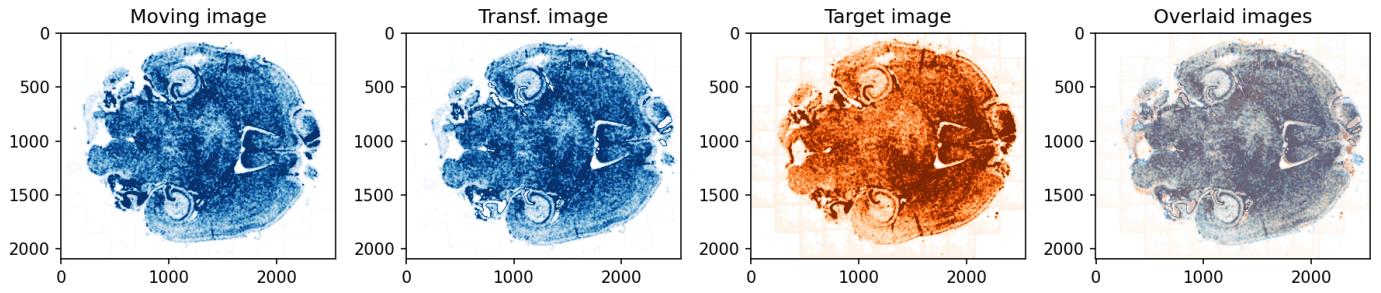


Figure 5.39: Results of registration of image P2-A-C3H-M1_NOK-0010-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0010-Scene-2 (Target image)

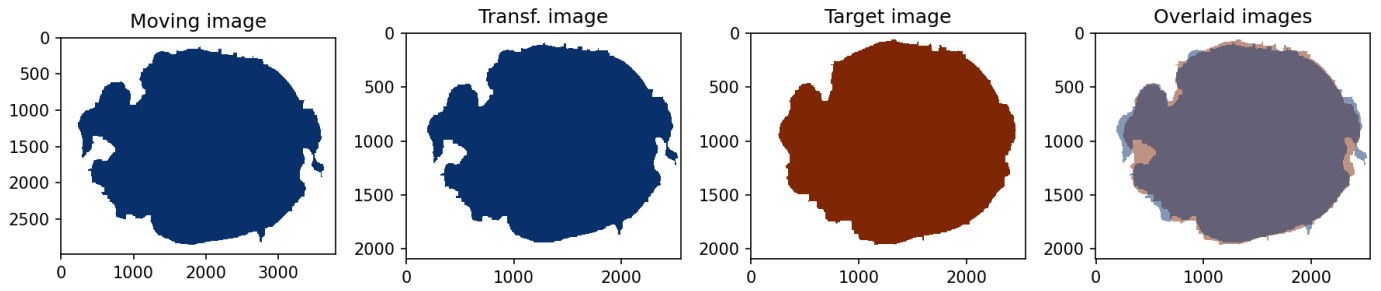


Figure 5.40: Results of registration of image P2A_C3H_M1_HE-0010-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0010-Scene-2 (Target image)

5.1.21 0011_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0011-Scene-1.czi
- P2-A-C3H-M1_NOK-0011-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0011-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

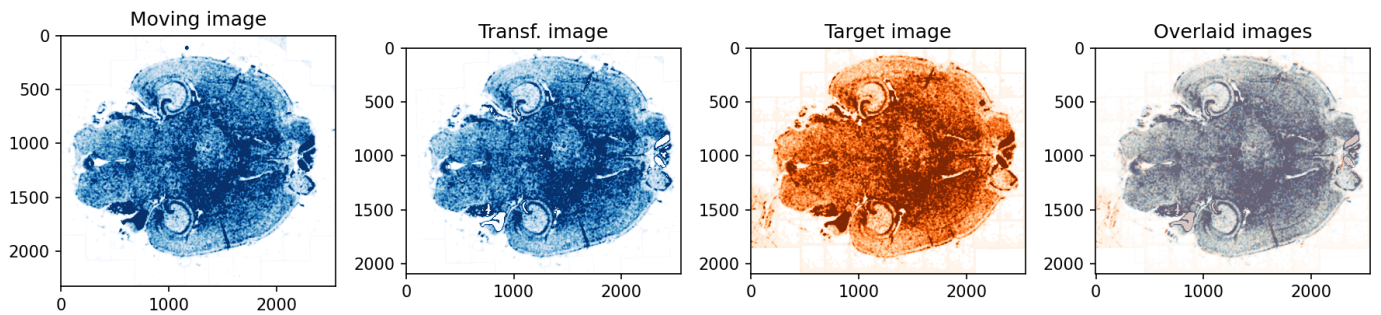


Figure 5.41: Results of registration of image P2-A-C3H-M1_NOK-0011-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0011-Scene-1 (Target image)

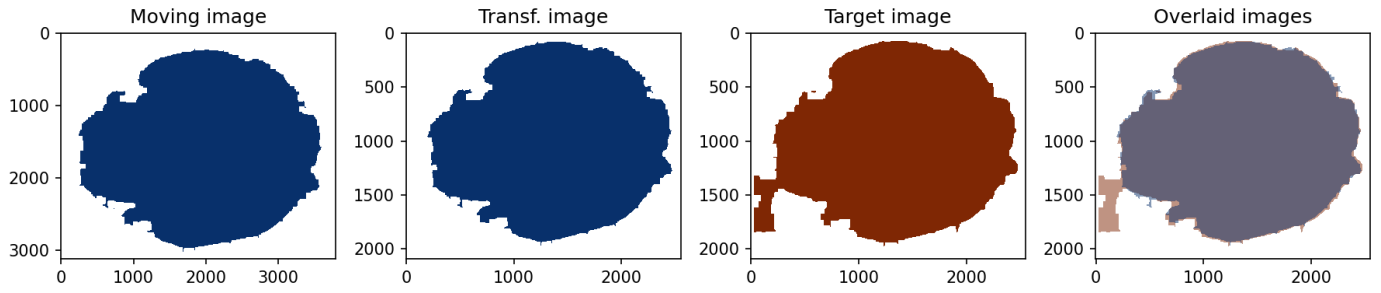


Figure 5.42: Results of registration of image P2A_C3H_M1_HE-0011-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0011-Scene-1 (Target image)

5.1.22 0011_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0011-Scene-2.czi
- P2-A-C3H-M1_NOK-0011-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0011-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

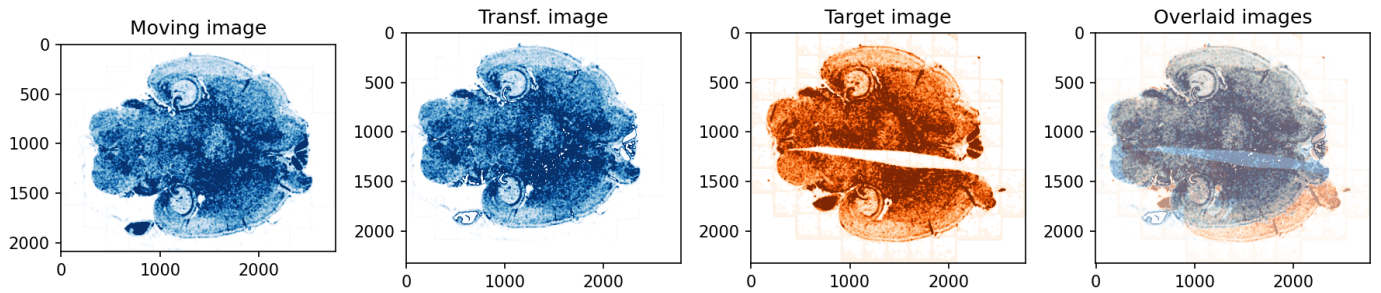


Figure 5.43: Results of registration of image P2-A-C3H-M1_NOK-0011-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0011-Scene-2 (Target image)

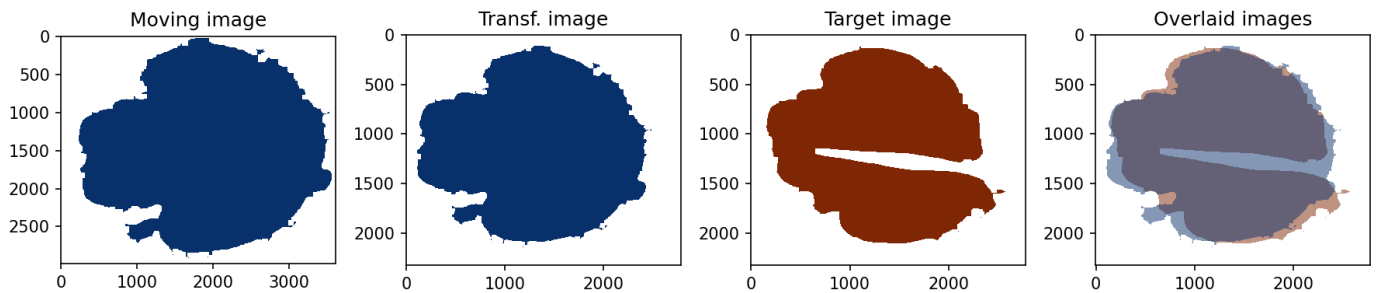


Figure 5.44: Results of registration of image P2A_C3H_M1_HE-0011-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0011-Scene-2 (Target image)

5.1.23 0012_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0012-Scene-1.czi
- P2-A-C3H-M1_NOK-0012-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0012-Scene-1-ScanRegion0.czi

Registered stainings: 2/3

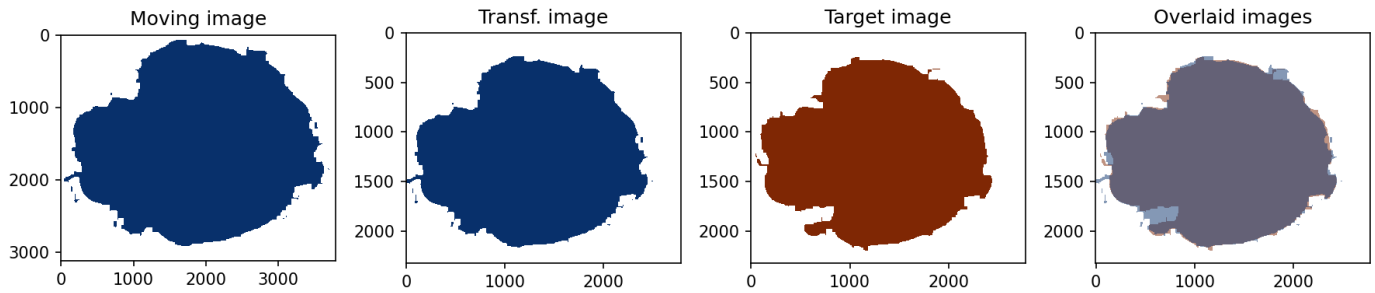


Figure 5.45: Results of registration of image P2A_C3H_M1_HE-0012-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0012-Scene-1 (Target image)

5.1.24 0012_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0012-Scene-2.czi
- P2-A-C3H-M1_NOK-0012-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0012-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

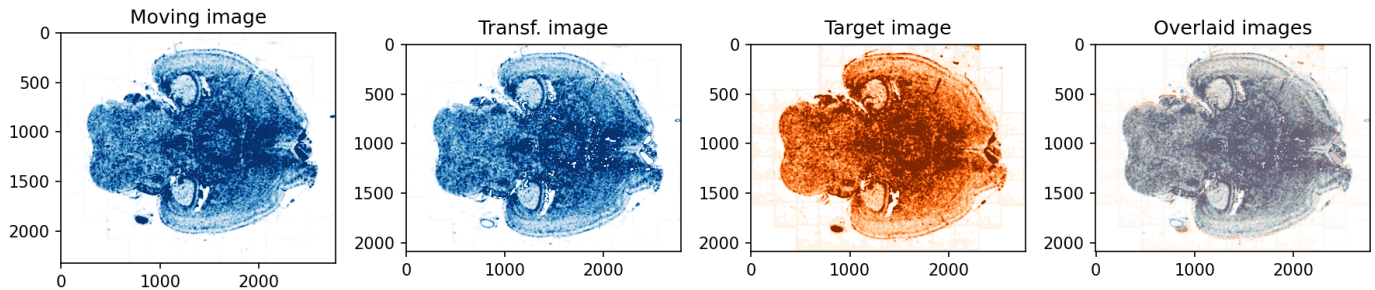


Figure 5.46: Results of registration of image P2-A-C3H-M1_NOK-0012-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0012-Scene-2 (Target image)

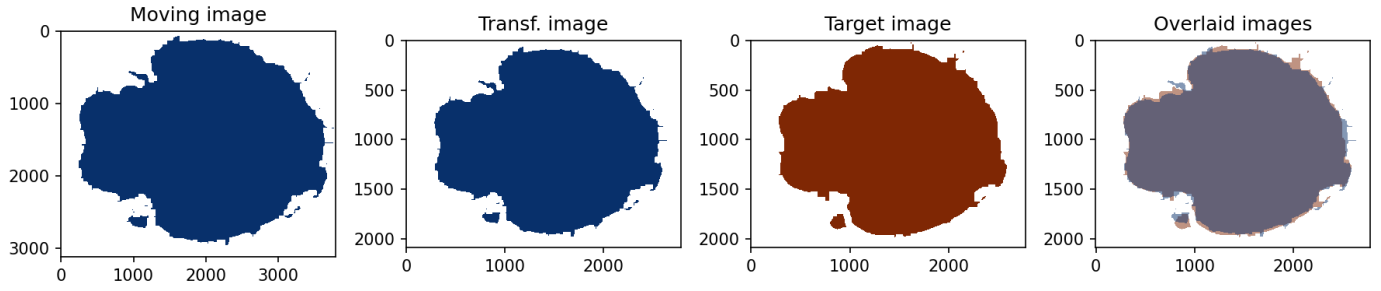


Figure 5.47: Results of registration of image P2A_C3H_M1_HE-0012-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0012-Scene-2 (Target image)

5.1.25 0013_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0013-Scene-1.czi
- P2-A-C3H-M1_NOK-0013-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0013-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

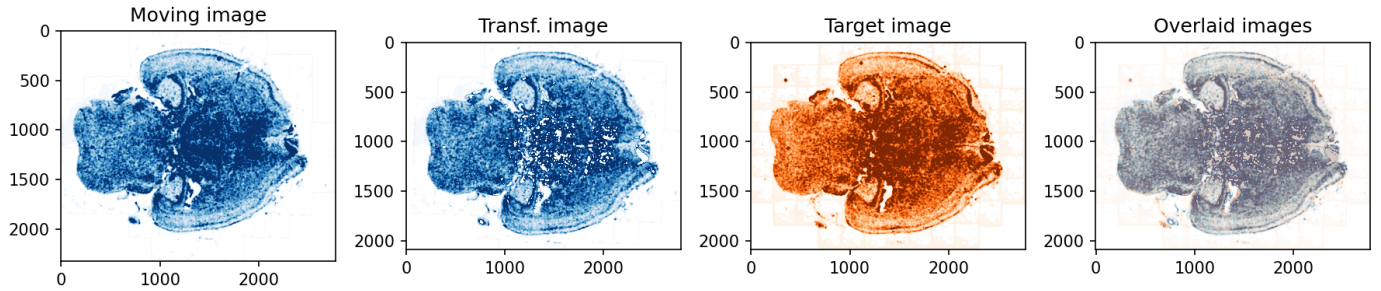


Figure 5.48: Results of registration of image P2-A-C3H-M1_NOK-0013-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0013-Scene-1 (Target image)

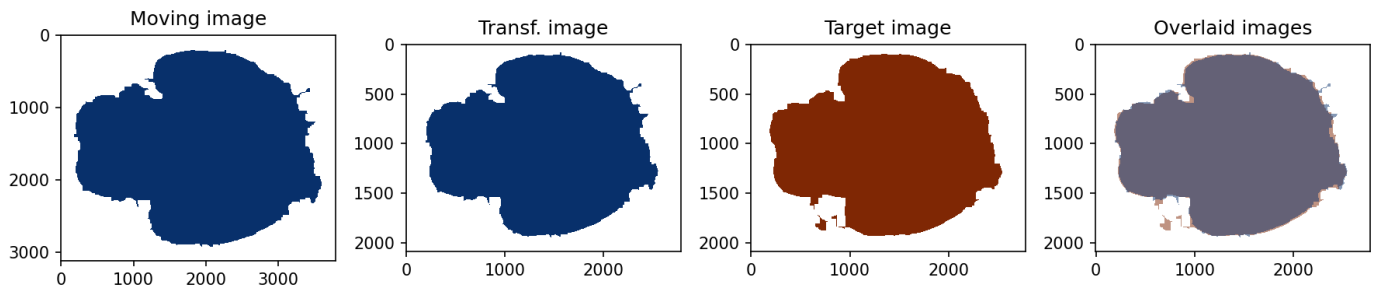


Figure 5.49: Results of registration of image P2A_C3H_M1_HE-0013-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0013-Scene-1 (Target image)

5.1.26 0013_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0013-Scene-2.czi
- P2-A-C3H-M1_NOK-0013-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0013-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

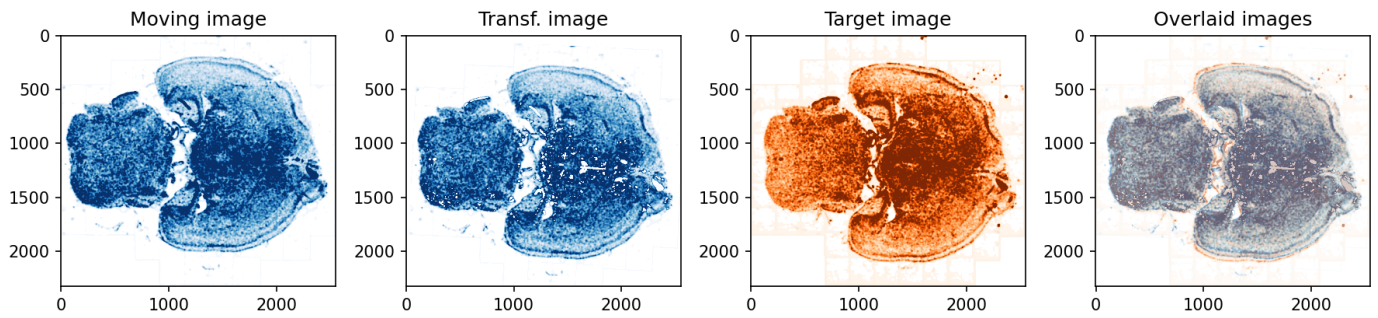


Figure 5.50: Results of registration of image P2-A-C3H-M1_NOK-0013-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0013-Scene-2 (Target image)

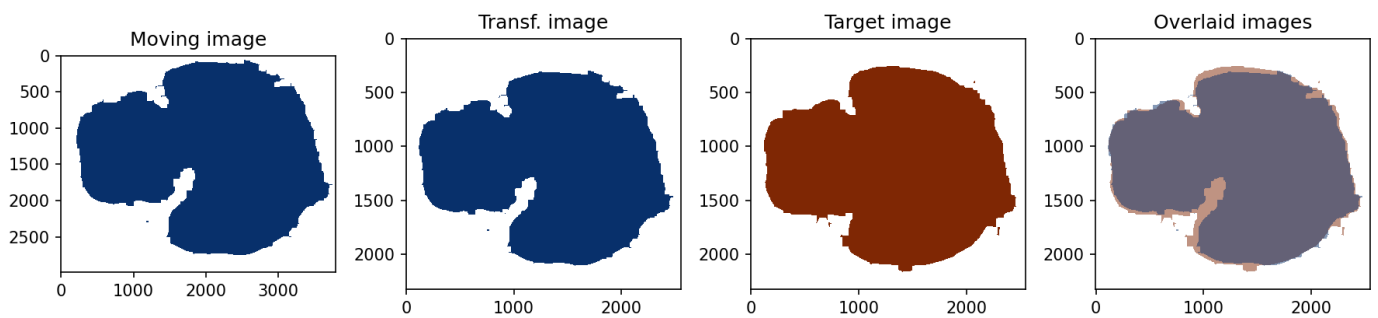


Figure 5.51: Results of registration of image P2A_C3H_M1_HE-0013-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0013-Scene-2 (Target image)

5.1.27 0014_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0014-Scene-1.czi
- P2-A-C3H-M1_NOK-0014-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0014-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

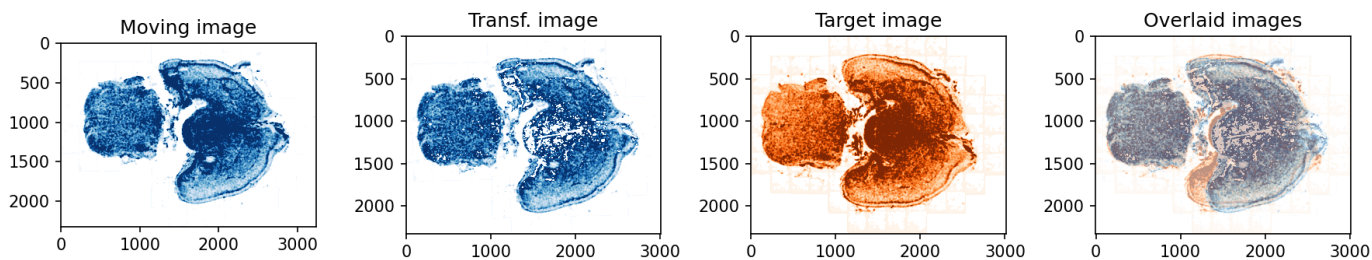


Figure 5.52: Results of registration of image P2-A-C3H-M1_NOK-0014-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0014-Scene-1 (Target image)

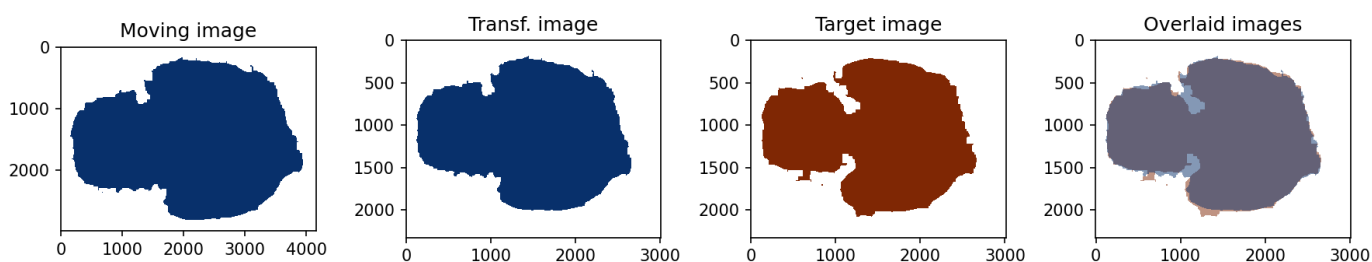


Figure 5.53: Results of registration of image P2A_C3H_M1_HE-0014-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0014-Scene-1 (Target image)

5.1.28 0014_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0014-Scene-2.czi
- P2-A-C3H-M1_NOK-0014-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0014-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

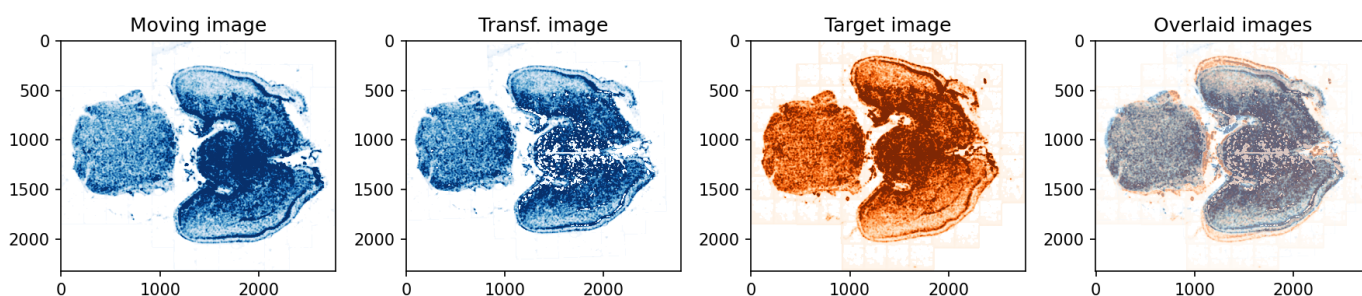


Figure 5.54: Results of registration of image P2-A-C3H-M1_NOK-0014-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0014-Scene-2 (Target image)

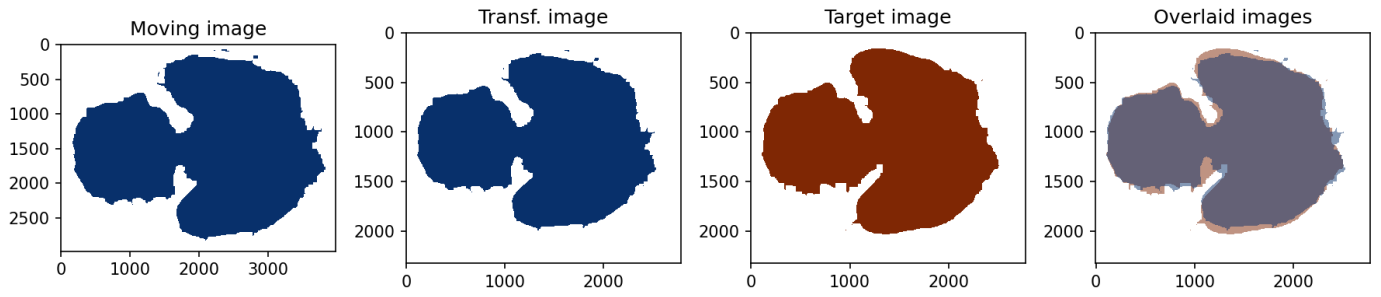


Figure 5.55: Results of registration of image P2A_C3H_M1_HE-0014-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0014-Scene-2 (Target image)

5.1.29 0015_Scene_1

Raw images:

- P2-A-C3H-M1_GNI-0015-Scene-1.czi
- P2-A-C3H-M1_NOK-0015-Scene-1-ScanRegion0.czi
- P2A_C3H_M1_HE-0015-Scene-1-ScanRegion0.czi

Registered stainings: 3/3

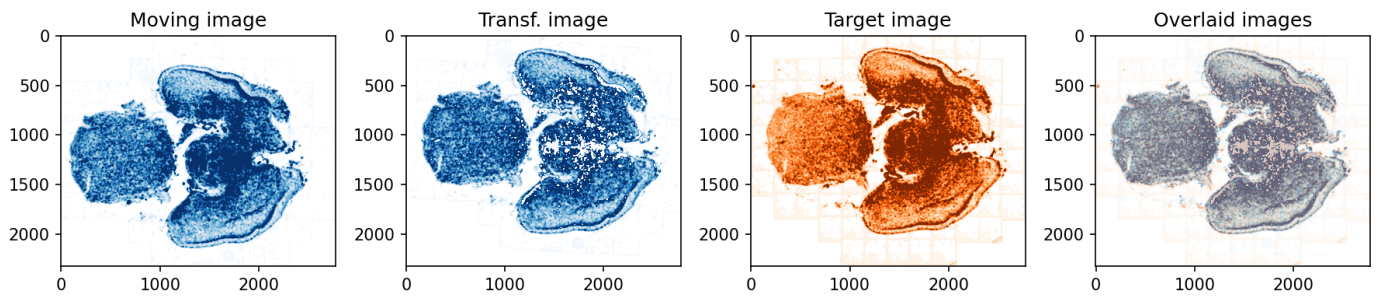


Figure 5.56: Results of registration of image P2-A-C3H-M1_NOK-0015-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0015-Scene-1 (Target image)

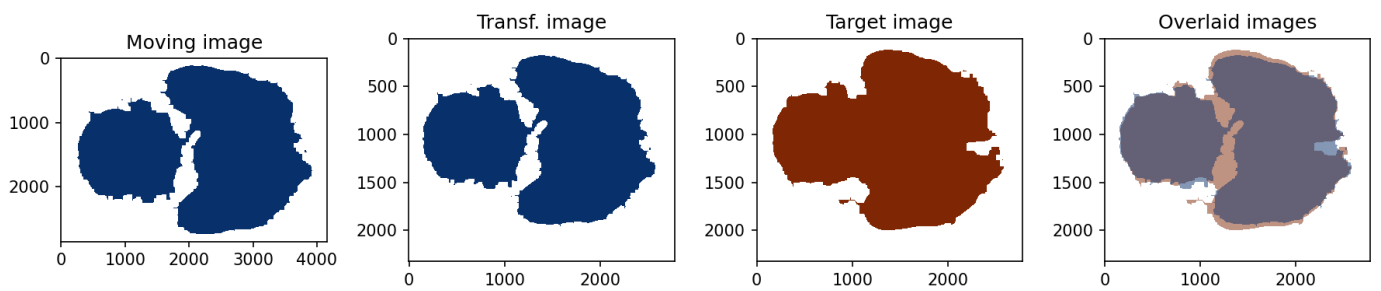


Figure 5.57: Results of registration of image P2A_C3H_M1_HE-0015-Scene-1-ScanRegion0 (Moving image) to P2-A-C3H-M1_GNI-0015-Scene-1 (Target image)

5.1.30 0015_Scene_2

Raw images:

- P2-A-C3H-M1_GNI-0015-Scene-2.czi
- P2-A-C3H-M1_NOK-0015-Scene-2-ScanRegion1.czi
- P2A_C3H_M1_HE-0015-Scene-2-ScanRegion1.czi

Registered stainings: 3/3

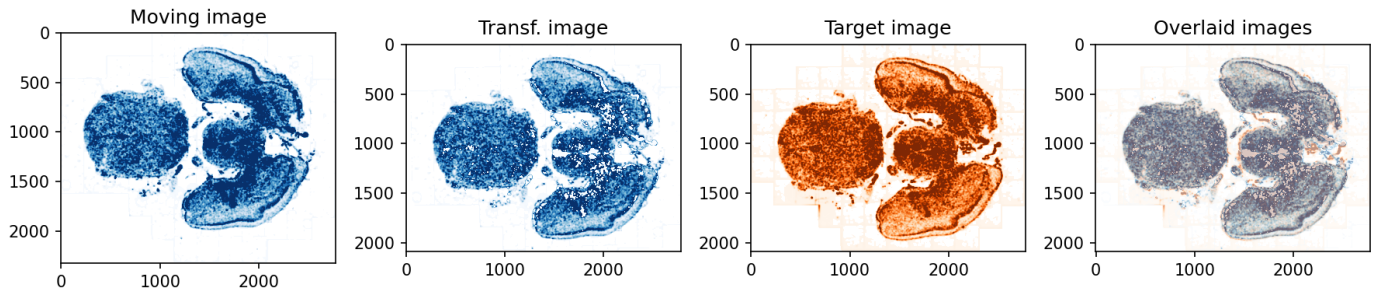


Figure 5.58: Results of registration of image P2-A-C3H-M1_NOK-0015-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0015-Scene-2 (Target image)

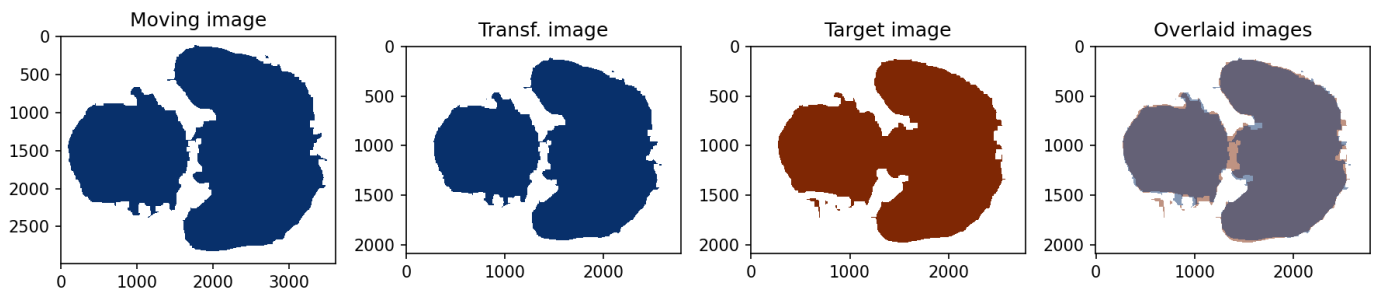


Figure 5.59: Results of registration of image P2A_C3H_M1_HE-0015-Scene-2-ScanRegion1 (Moving image) to P2-A-C3H-M1_GNI-0015-Scene-2 (Target image)

5.2 Slice2Volume

Forward transformation files: 26/30

Inverse transformation files: 26/30

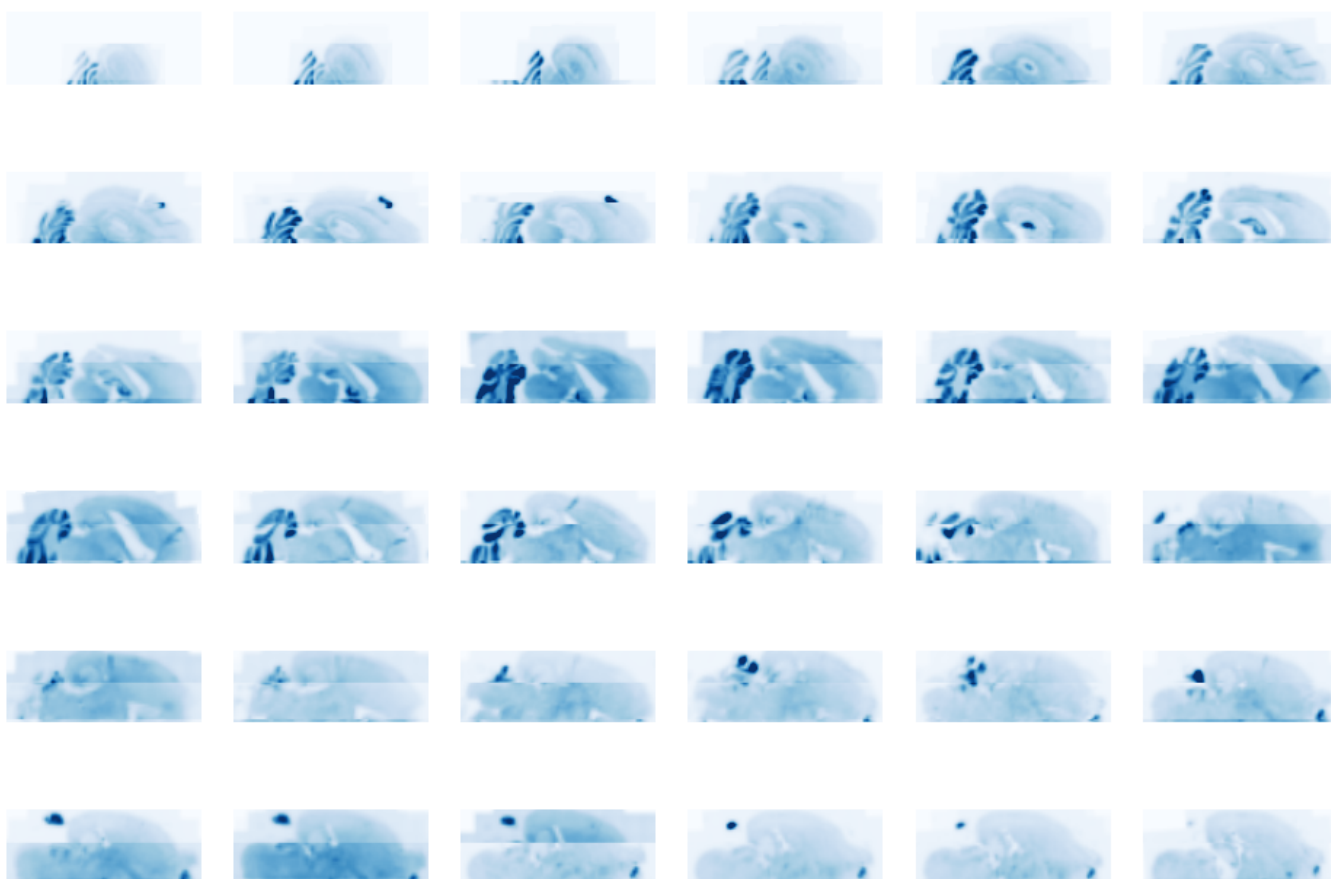


Figure 5.60: Sequence of coronal DAPI images that were transformed with Slice2Volume. This view allows to evaluate the consistency of subsequent slices.

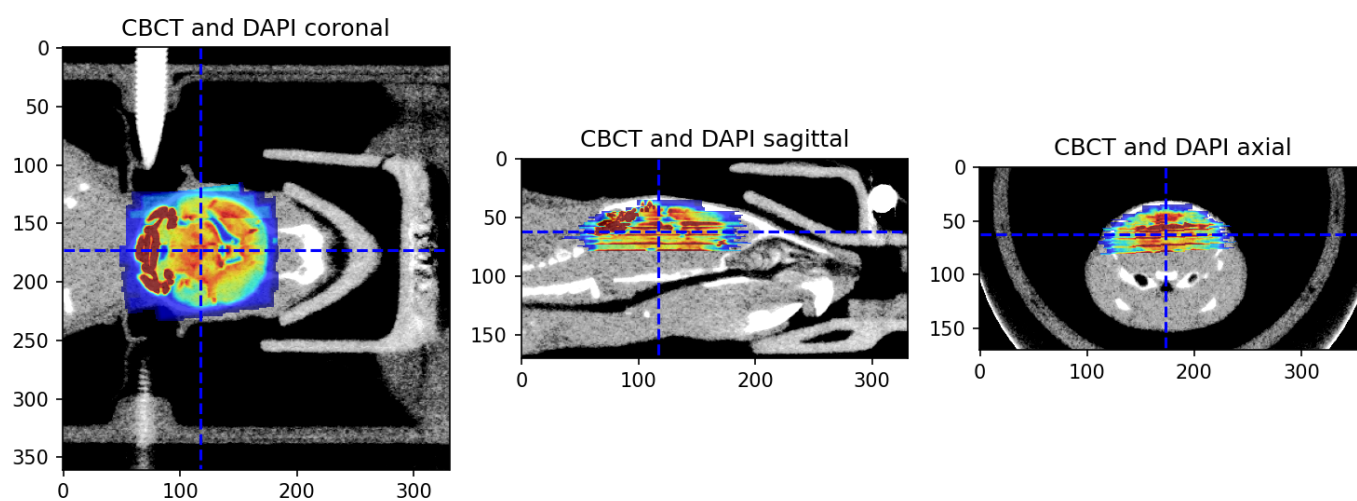


Figure 5.61: Overlay of downsampled and transformed histological image (DAPI_r) and CBCT