

Harmonization of protocols for the manual tracing of the hippocampus - an EADC-ADNI joint effort **AUTHOR-CERTIFIED PROTOCOL FEATURES AND TRACINGS**

Convit A, De Leon MJ, Tarshish C, De Santi S, Tsui W, Rusinek H, George A.
Specific hippocampal volume reductions in individuals at risk for Alzheimer's disease.
Neurobiol Aging. 1997; 18:131-8

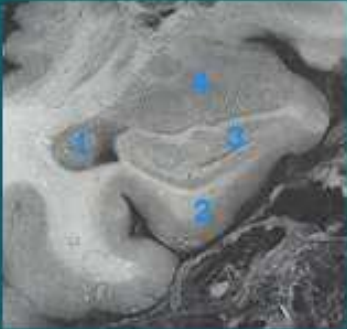
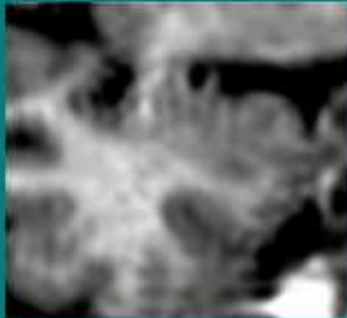
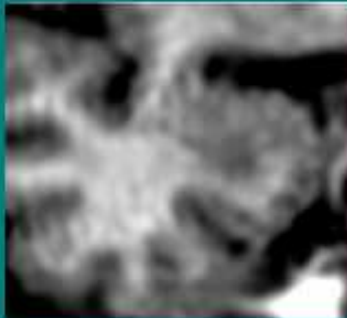
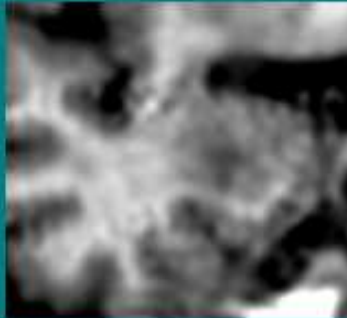
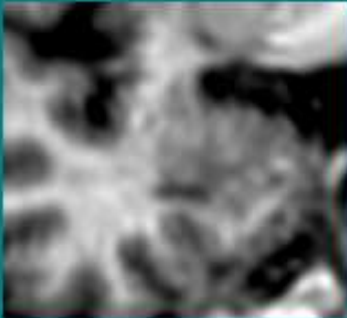
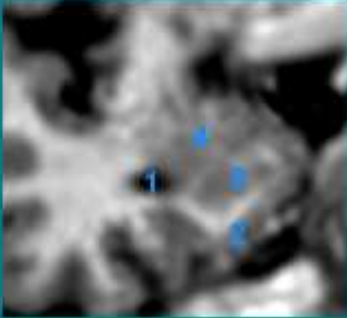
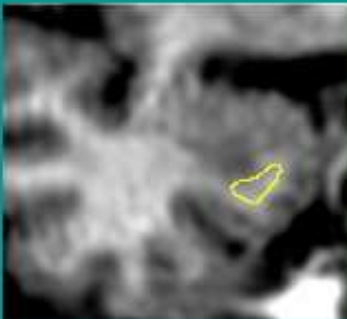
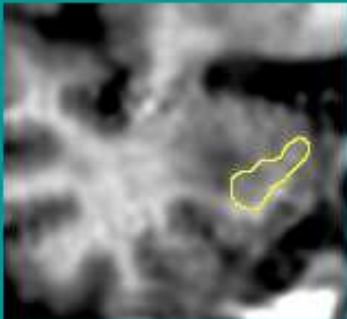
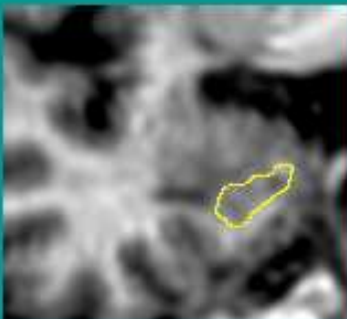
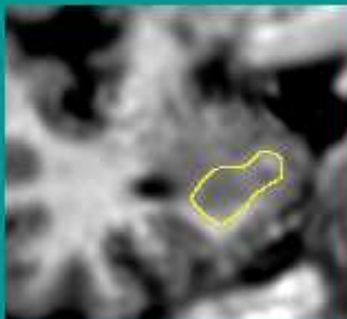
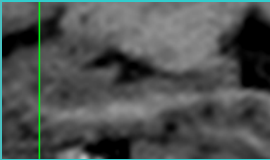
In the following section you can find:

- 1)An excerpt of the Survey of anatomical landmarks according to Convit et al.'s criteria.
- 2)The hippocampal tracing on consecutive coronal slices of a 1.5T ADNI control subject (**2A**) and AD patient (**2B**).

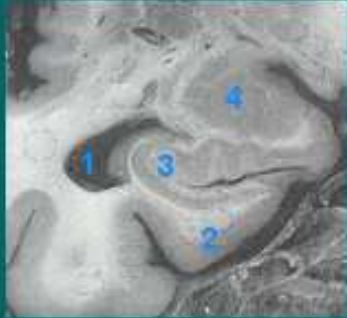
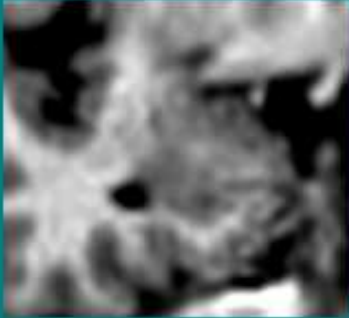
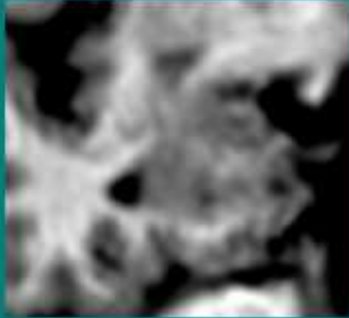
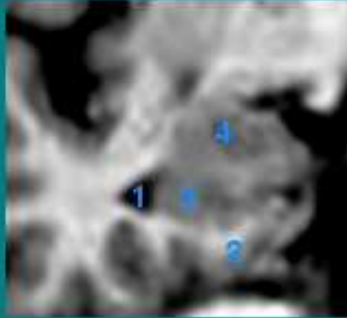
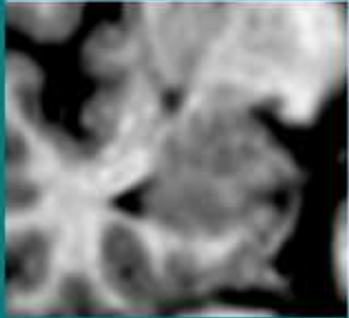
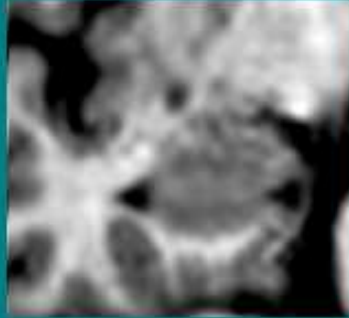
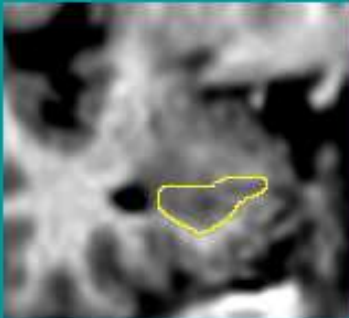
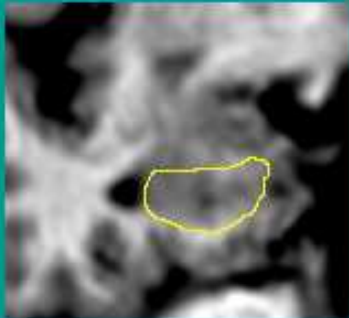
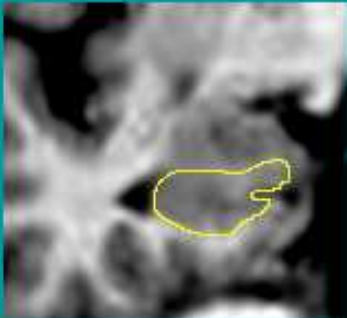
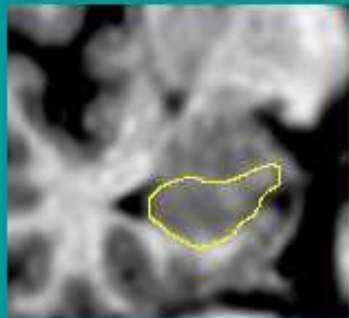
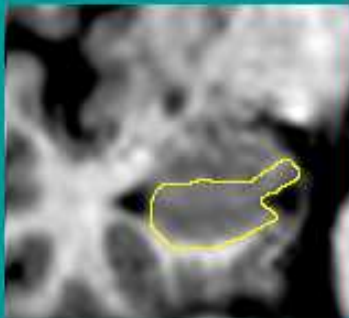
1) Excerpt of the Survey of anatomical landmarks according to Convit et al.'s criteria.

Plane				
axis of hippocampus				
Start tracing				
from head to tail				
Areas explicitly included		Areas explicitly excluded	Most anterior slice	Most posterior slice
Portion of subiculum directly underneath the hippocampus, alveus and fimbria		Portion of subiculum not underneath the hippocampus	Level at w hich the head of hippocampus first appears below the amygdala as a transversely oriented oval structure	Level w here the crus of fornix w as visible in full profile
BOUNDARIES				
	Lateral border	Inferior border	Medial border	Superior border
HEAD	temporal horn of lateral ventricle	White matter of parahippocampal gyrus	Vertical line draw n from the CA of hippocampus to the w hite matter of parahippocampal gyrus	Alveus/orizontal line connecting the middle of the medial border of the lateral ventricle to the surface of the uncus
BODY	temporal horn of lateral ventricle	White matter of parahippocampal gyrus	Vertical line draw n from the CA of hippocampus to the w hite matter of parahippocampal gyrus	not mentioned
TAIL	temporal horn of lateral ventricle	White matter of parahippocampal gyrus	Vertical line draw n from the CA of hippocampus to the w hite matter of parahippocampal gyrus	not mentioned



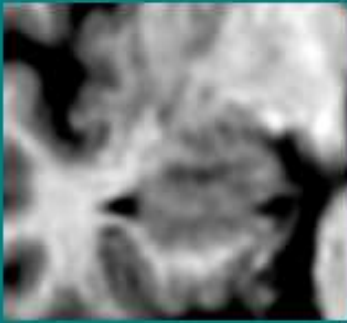
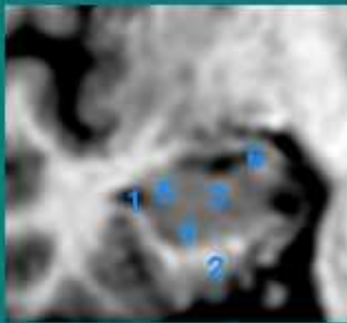
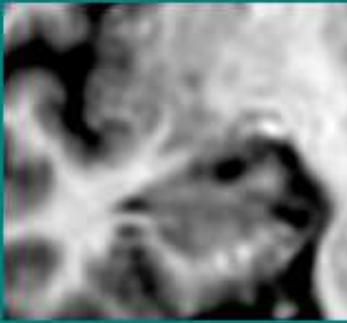
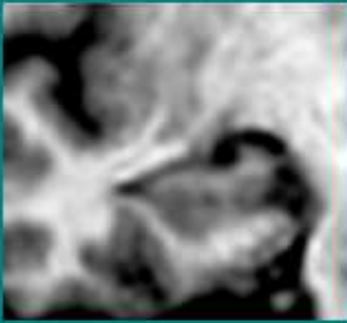
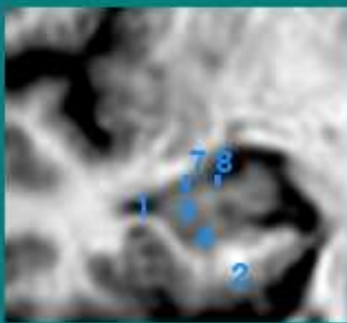
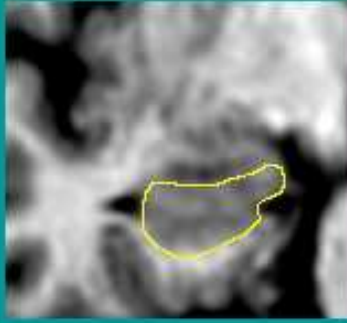
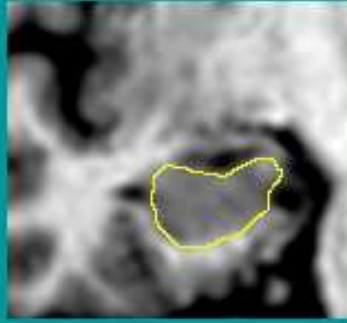
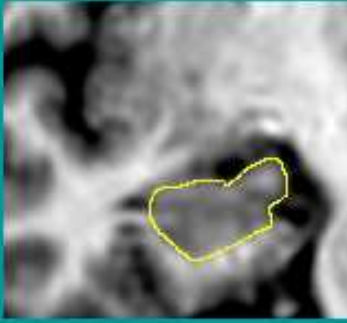
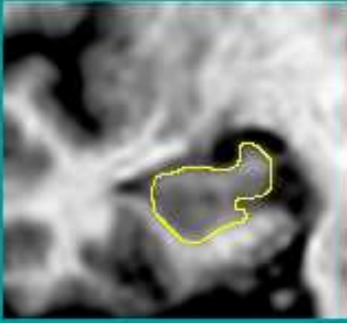
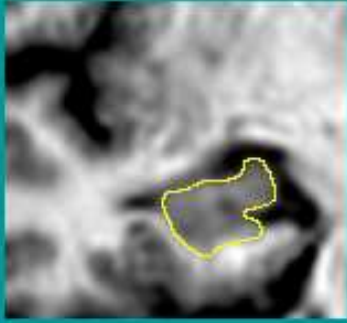
2A)CTRL

	117	118	119	120	121
Anatomical section					
Native MRI					
Tracing					
Notes		<p>Most posterior slice: level at which the head of hippocampus first appears below the amygdala as a transversely oriented oval structure</p>  <p>Sagittal view</p>			<p>1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Hippocampal head 4=Amygdala</p>

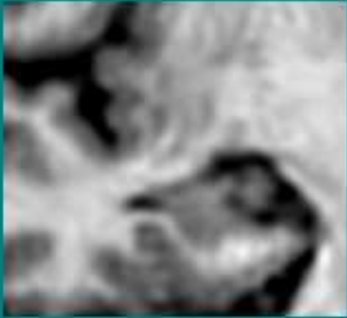
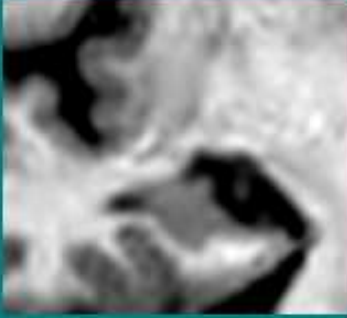
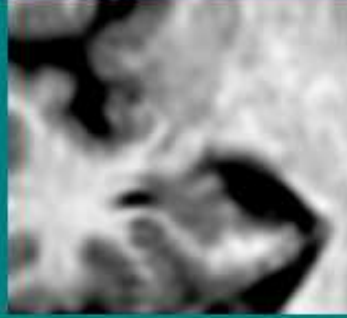
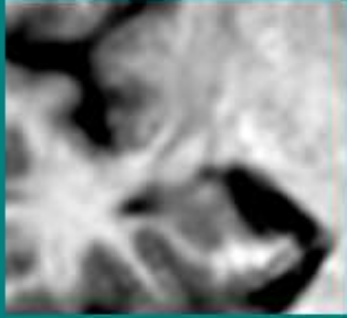
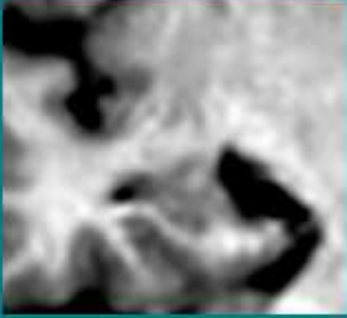
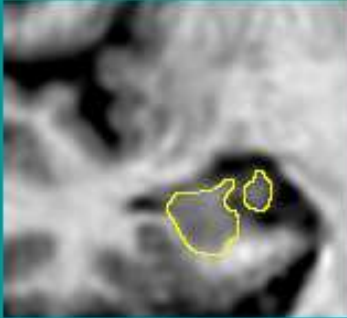
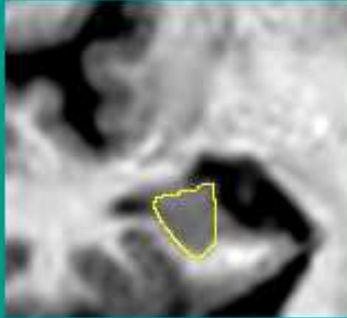
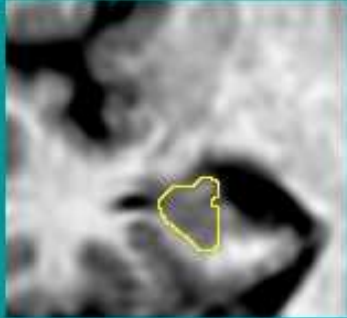
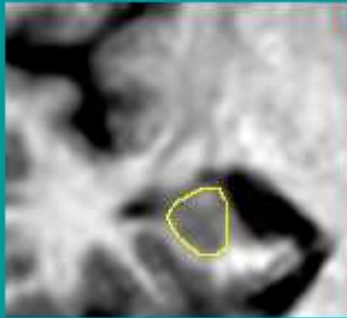
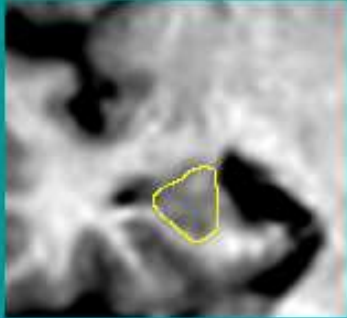
2A)CTRL

	122	123	124	125	126
Anatomical section					
Native MRI					
Tracing					
Notes		Superior border: alveus/orizontal line connecting the middle of the medial border of the lateral ventricle to the surface of the uncus	1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Hippocampal head 4=Amygdala		


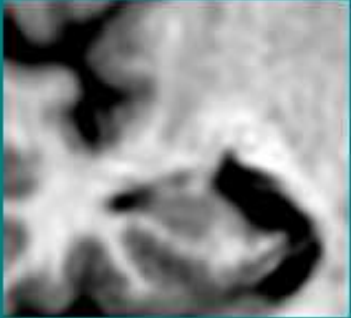
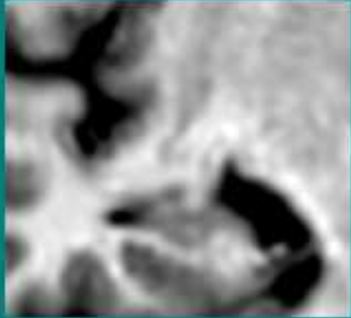
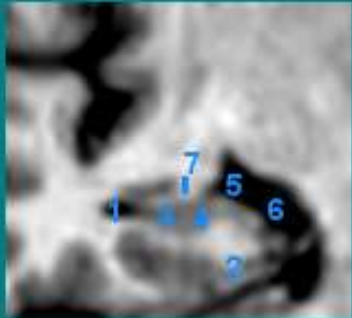
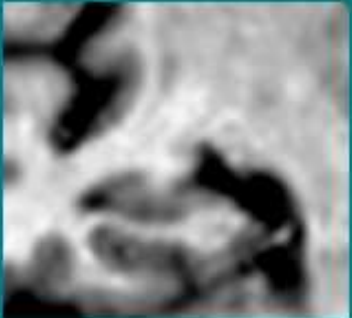

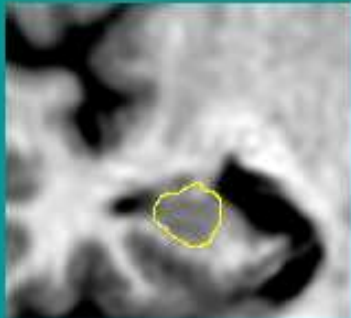
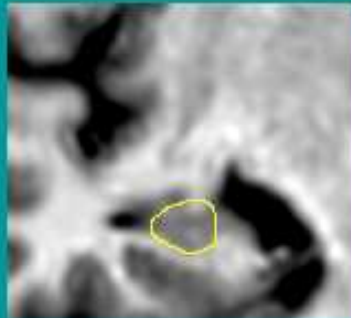
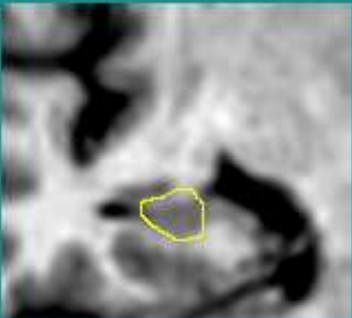
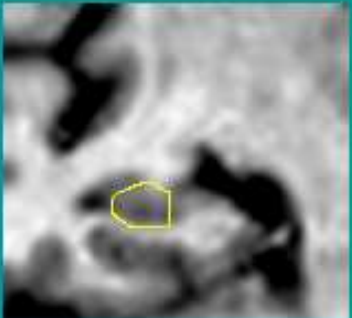
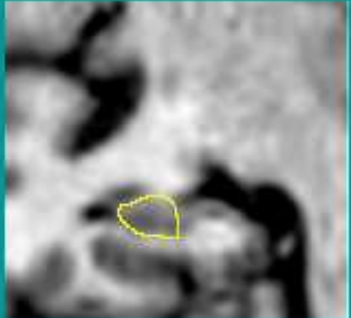
2A)CTRL

	127	128	129	130	131
Anatomical section					
Native MRI					
Tracing					
Notes		1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Gyrus dentatus 4=Subiculum 5=Cornu Ammonis 6=Vertical digitation		Alveus and fimbria were included in the tracing.	1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Gyrus dentatus 4=Subiculum 7=Alveus 8=Fimbria

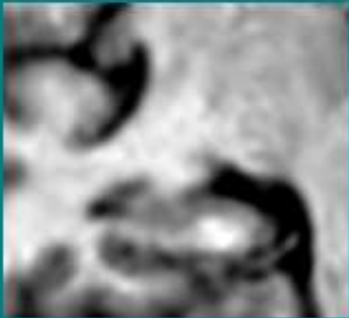


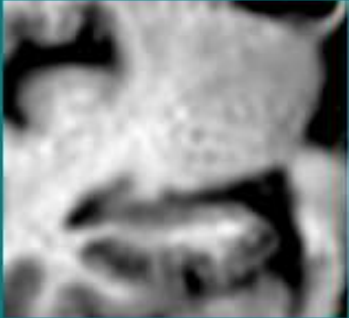
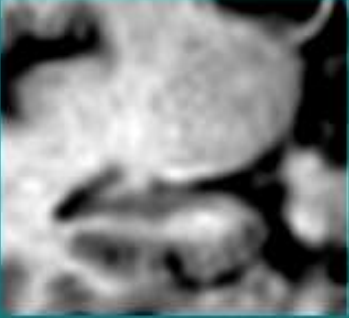
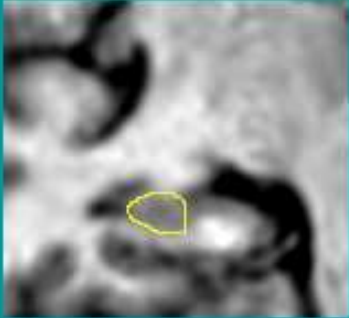
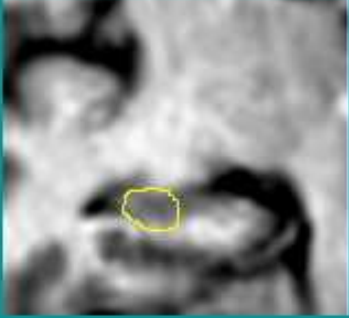
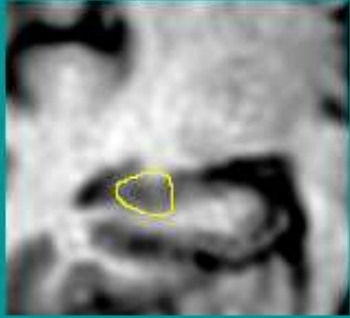
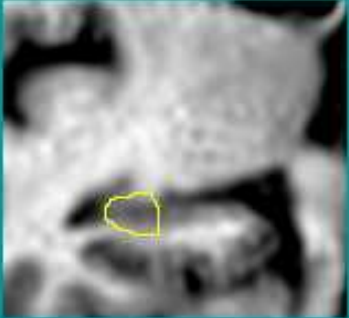
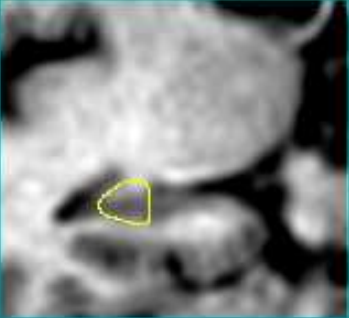
2A)CTRL

	132	133	134	135	136
Anatomical section					
Native MRI					
Tracing					
Notes		Medial border : vertical line drawn from the CA of hippocampus to the white matter of parahippocampal gyrus			


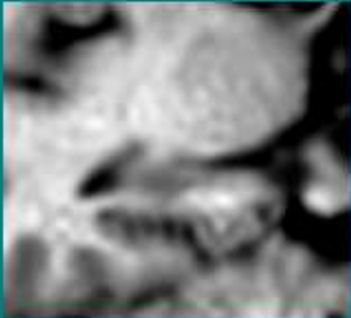
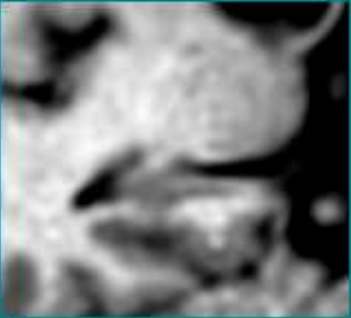
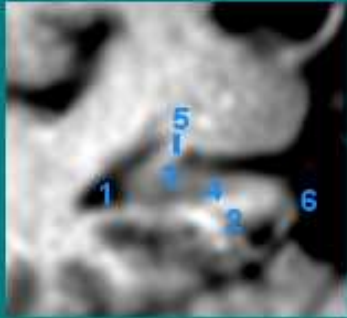
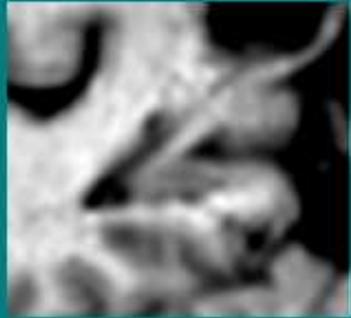
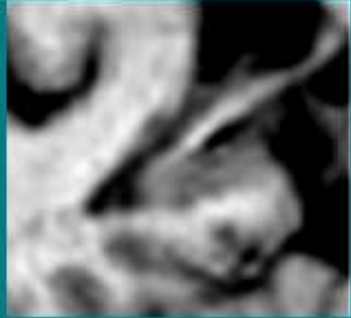
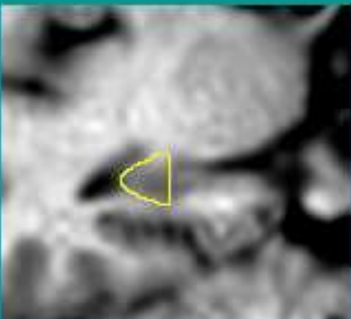
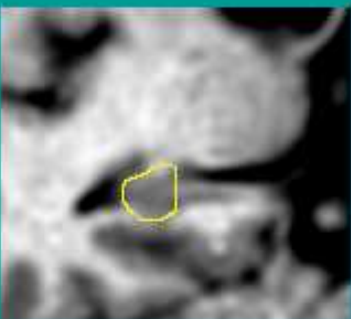
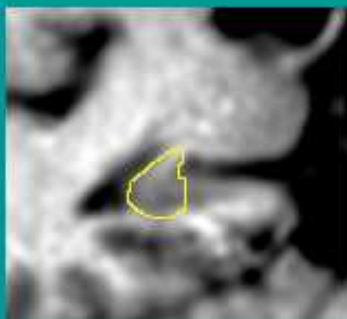
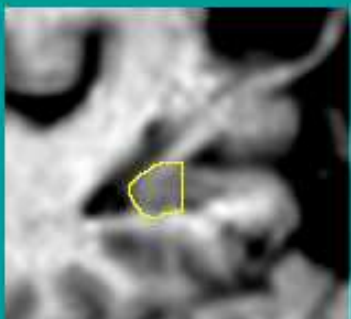
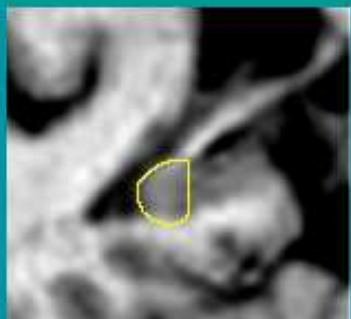
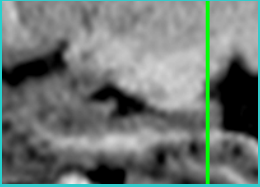
2A)CTRL

	137	138	139	140	141
Anatomical section					
Native MRI					
Tracing					
Notes			1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Gyrus dentatus 4=Subiculum 5=Choroidal fissure 6=Ambient cistern 7=Fimbria 8=Lateral geniculate body		



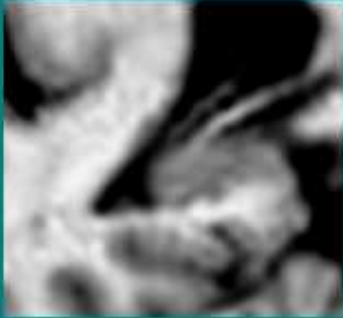
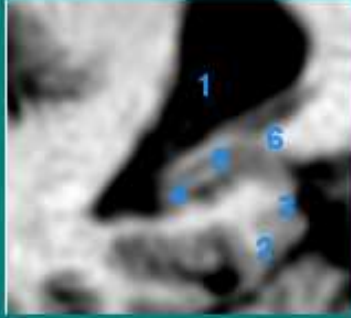
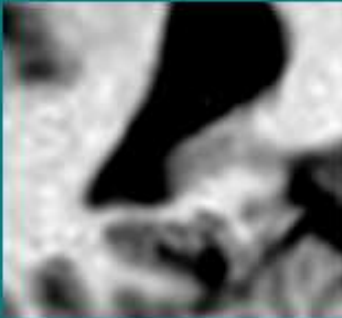
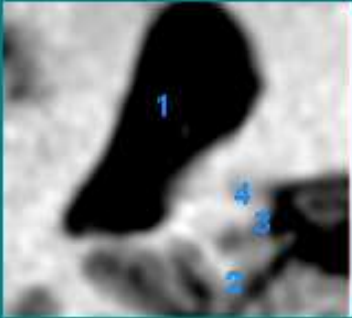
2A)CTRL

	142	143	144	145	146
Anatomical section					
Native MRI					
Tracing					
Notes					


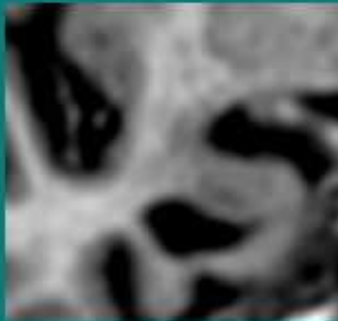
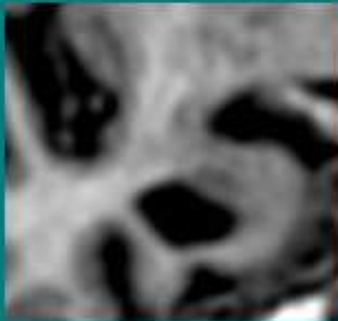


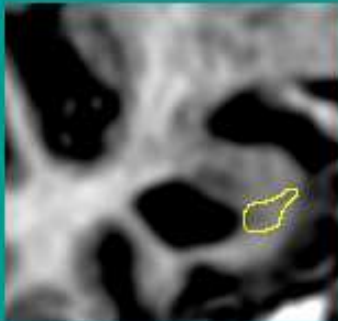
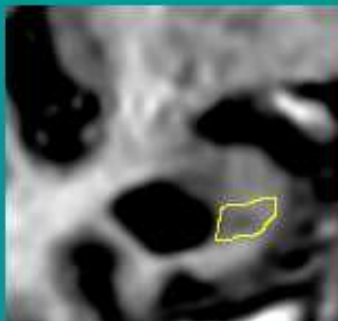
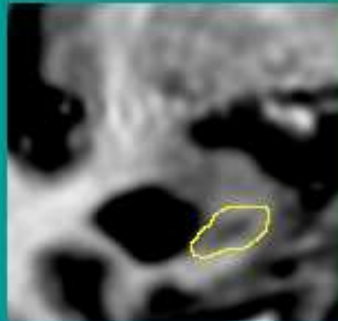
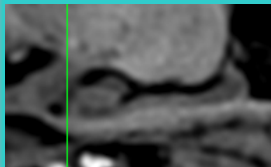
2A)CTRL

	147	148	149	150	151
Anatomical section					
Native MRI					
Tracing					
Notes			<p>1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Gyrus dentatus 4=Subiculum 5=Fimbria 6=Ambient cistern</p>		<p>Most posterior slice: level where the crus of fornix was visible in full profile</p>  <p>Sagittal view</p>


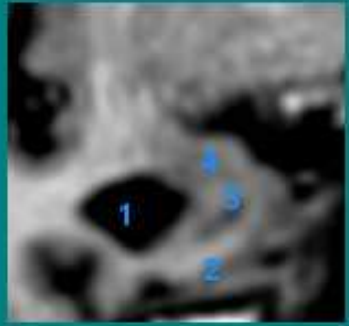
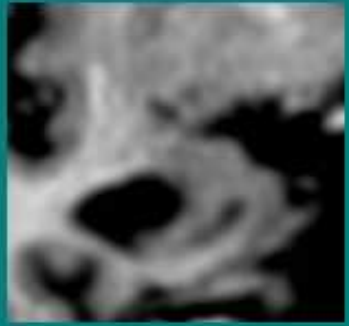
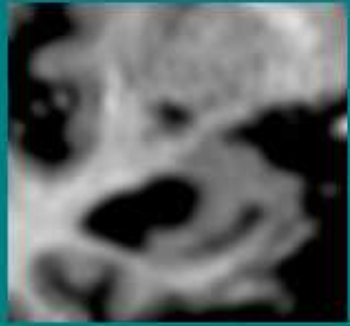
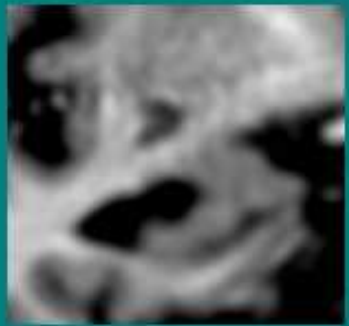

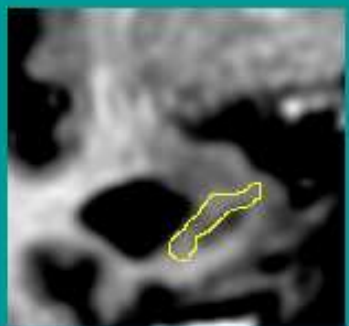
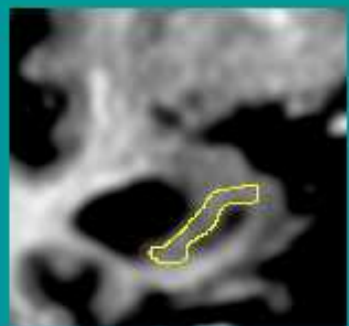
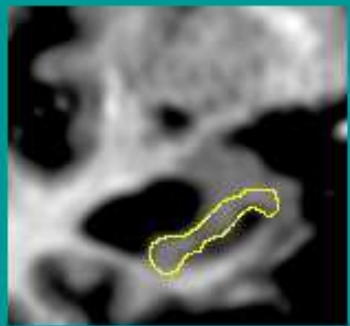
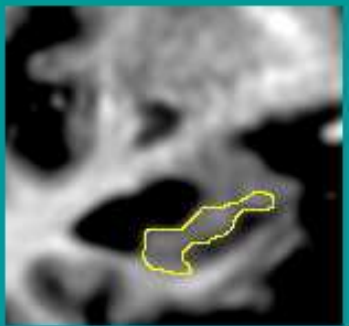
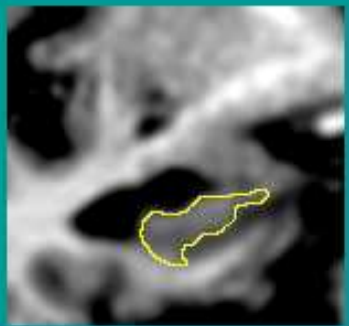
2A)CTRL

	152	153	154	155	
Anatomical section					
Native MRI					
Tracing					
Notes		<p>1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Isthmus 4=Cornu Ammonis 5=Gyrus dentatus 6=Crus of fornix</p>		<p>1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Isthmus 4=Cornu Ammonis</p>	

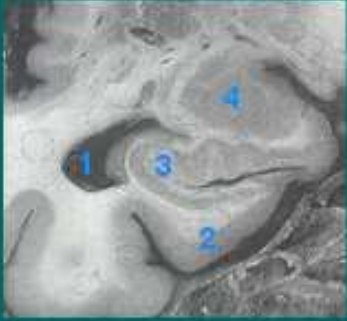

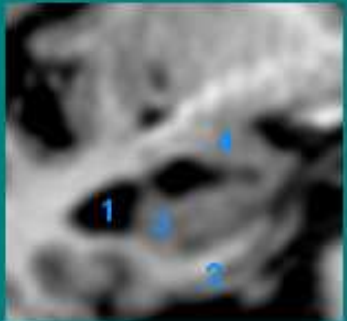
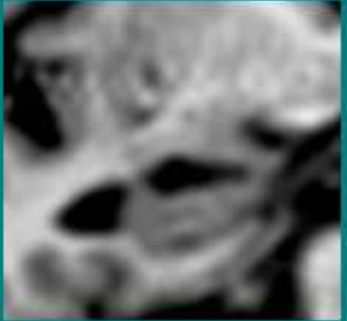
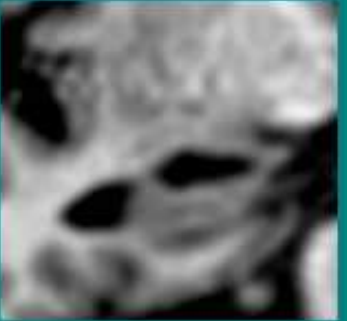
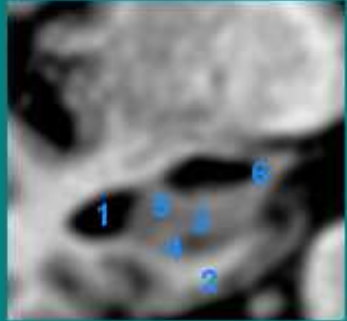
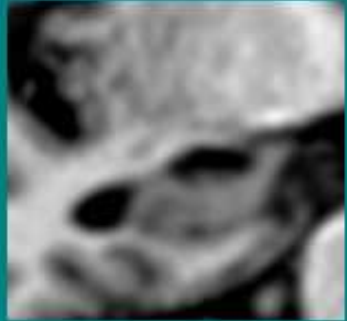
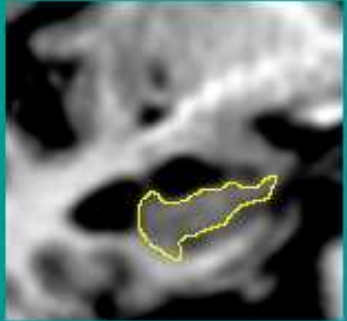
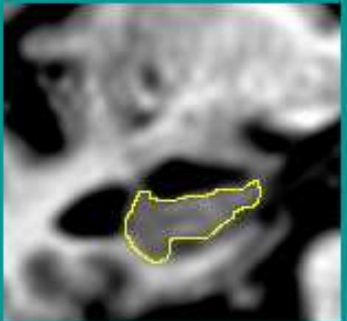
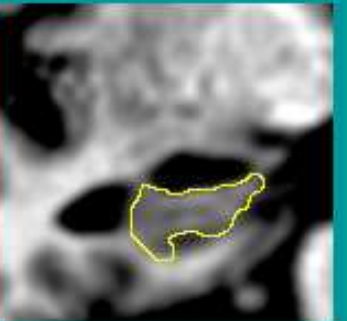
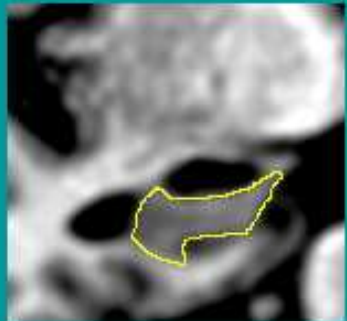
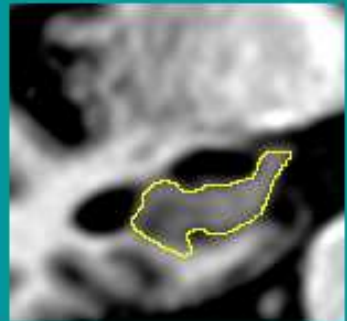
2B) AD

	159	160	161	162	163
Anatomical section					
Native MRI					
Tracing					
Notes			<p>Most anterior slice: level at which the head of hippocampus first appears below the amygdala as a transversely oriented oval structure</p>  <p>Sagittal view</p>		


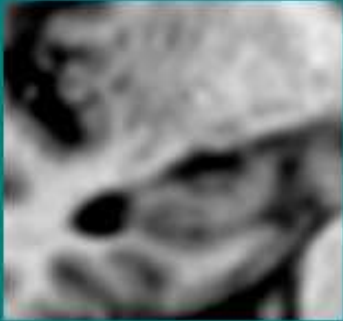

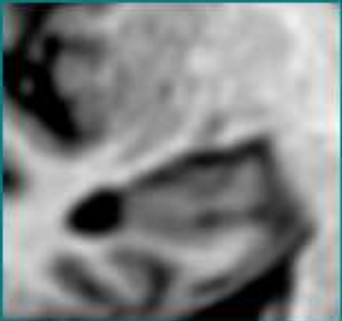
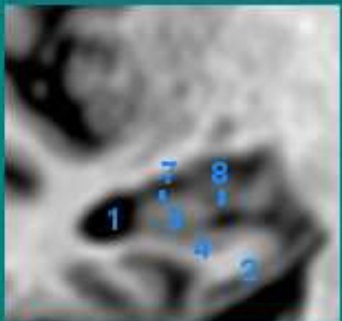

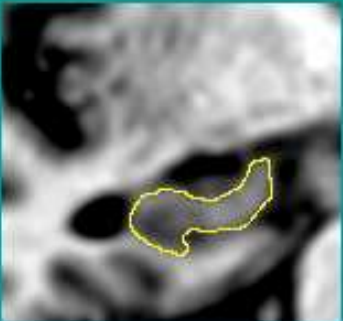
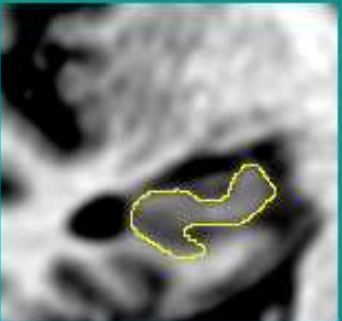
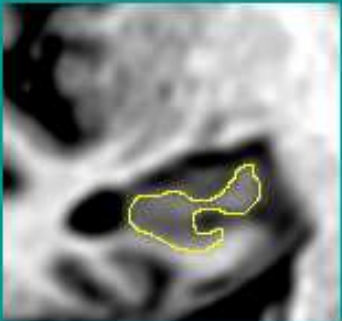
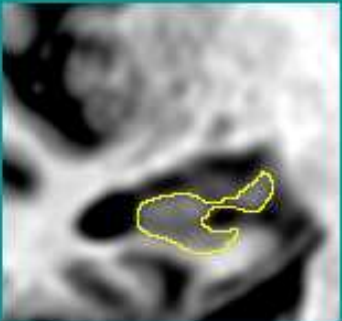
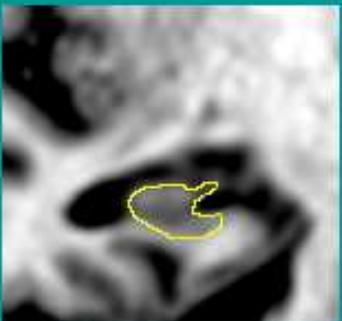
2B) AD

	164	165	166	167	168
Anatomical section					
Native MRI					
Tracing					
Notes	1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Hippocampal head 4=Amygdala				

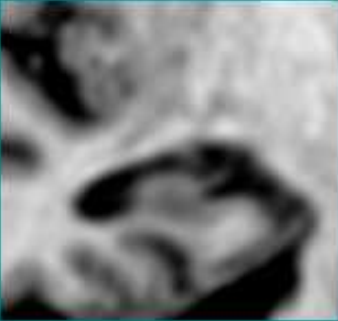
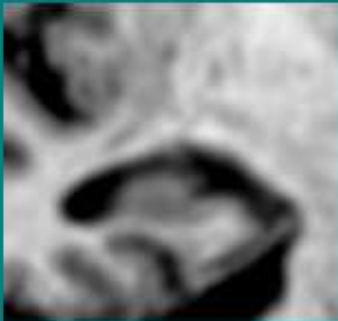
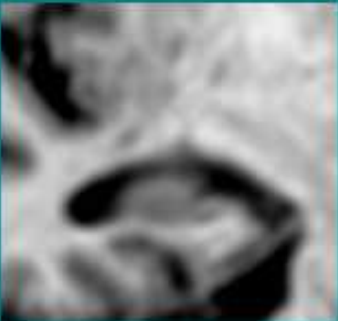
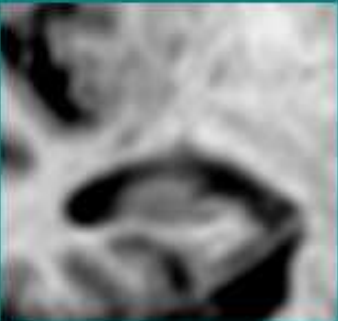
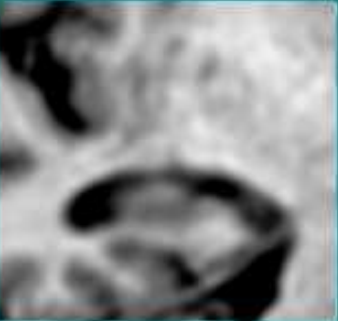
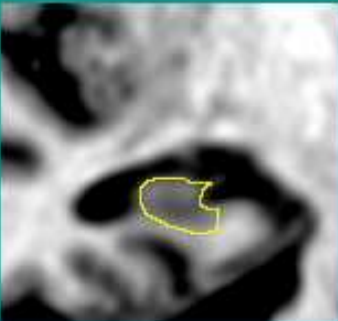
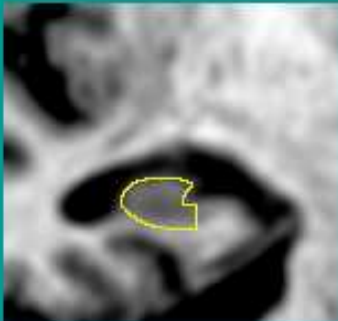
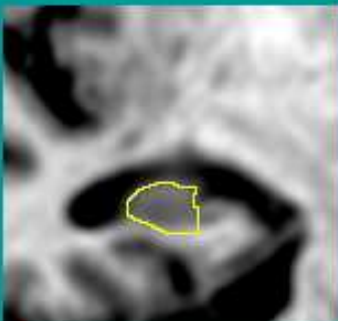
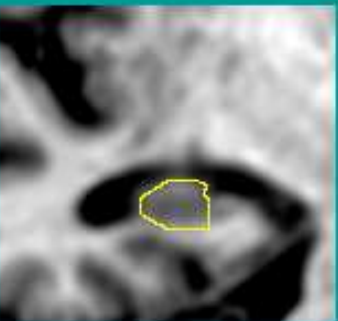
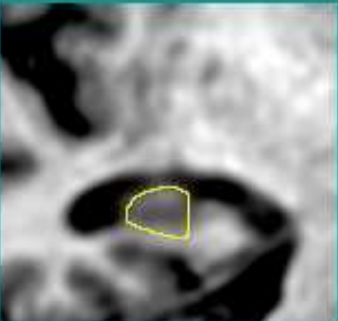
2B) AD

	169	170	171	172	173
Anatomical section					
Native MRI					
Tracing					
Notes	1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Hippocampal head 4=Amygdala			1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Gyrus dentatus 4=Subiculum 5=Cornu Ammonis 6=Vertical digitation	


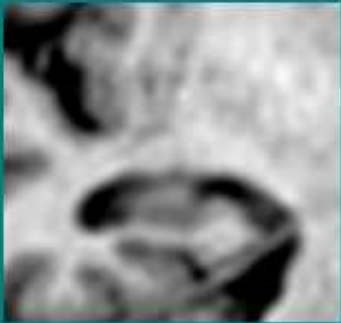
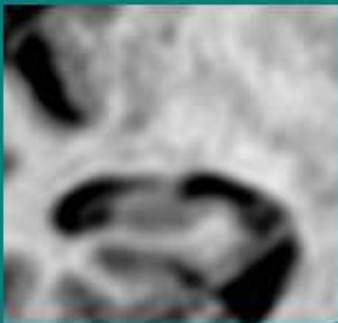
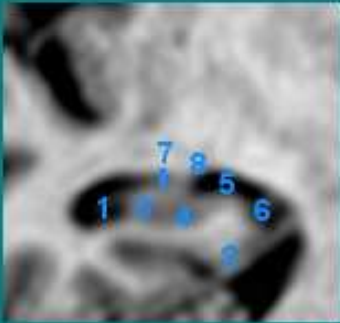
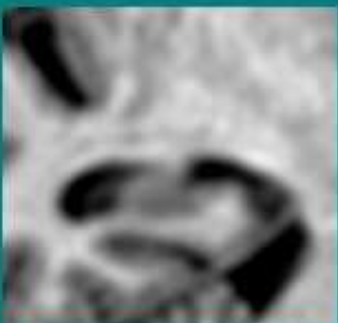

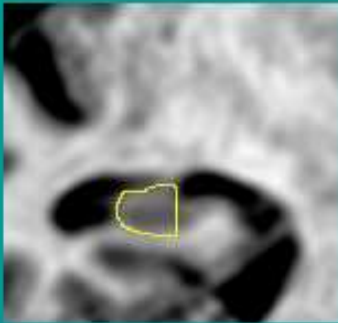
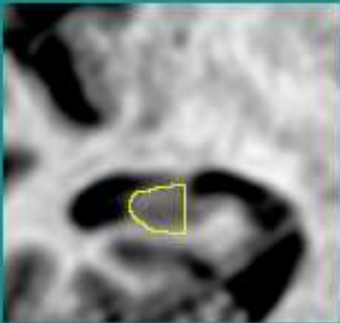
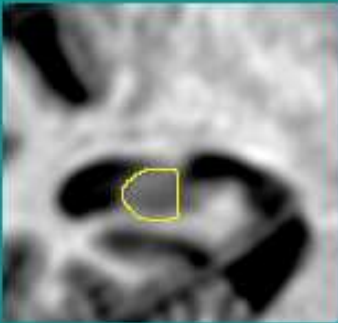
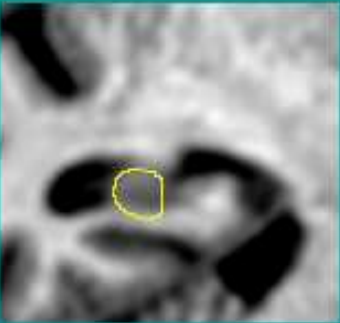
2B) AD

	174	175	176	177	178
Anatomical section					
Native MRI					
Tracing					
Notes				1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Gyrus dentatus 4=Subiculum 7=Alveus 8=Fimbria	


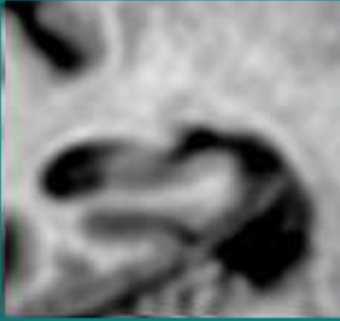


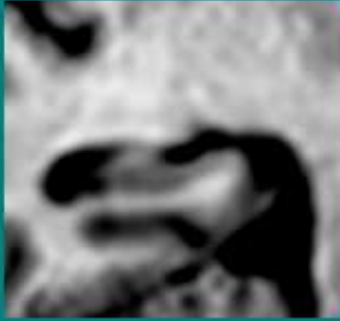
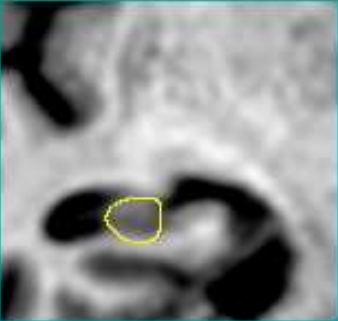
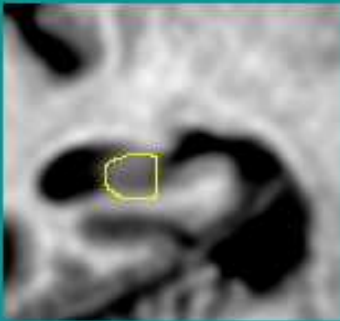
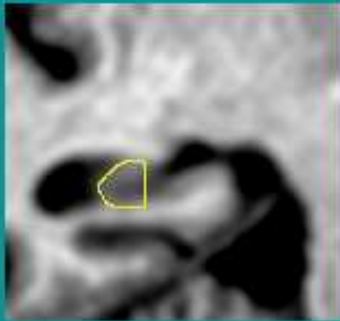
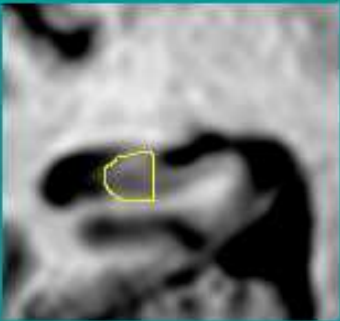
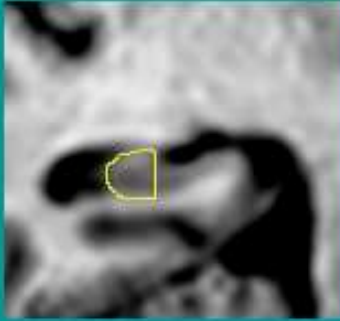
2B) AD

	179	180	181	182	183
Anatomical section					
Native MRI					
Tracing					
Notes					

2B) AD

	184	185	186	187	188
Anatomical section					
Native MRI					
Tracing					
Notes			<p>1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Gyrus dentatus 4=Subiculum 5=Choroidal fissure 6=Ambient cistern 7=Fimbria 8=Lateral geniculate body</p>		






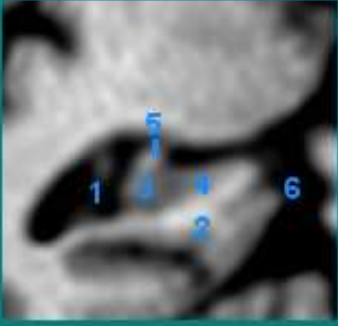
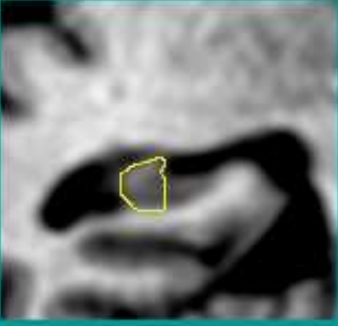
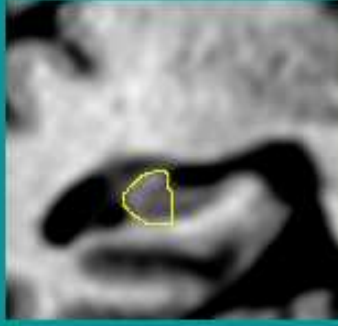
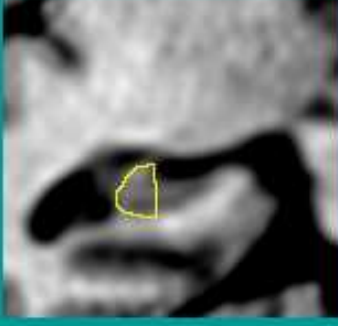
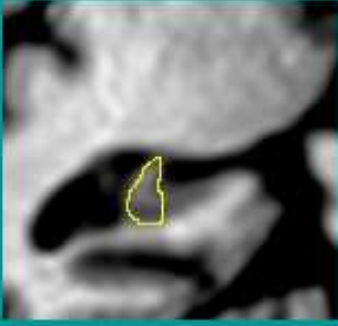
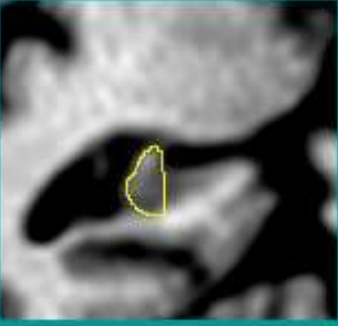
2B) AD

	189	190	191	192	193
Anatomical section					
Native MRI					
Tracing					
Notes					

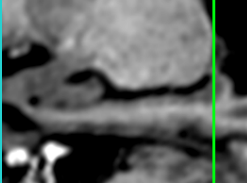
2B) AD


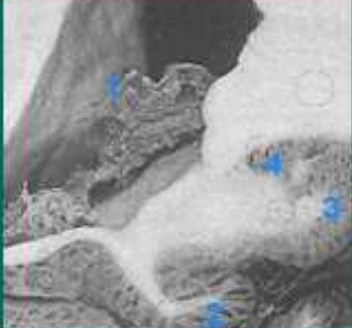
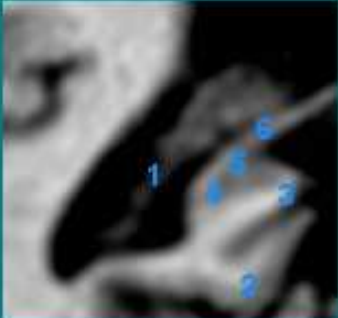

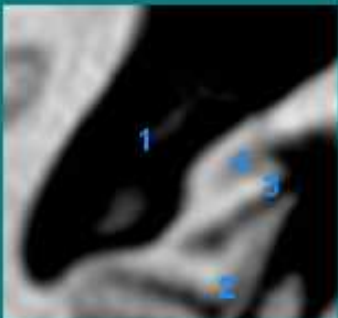
	194	195	196	197	198
Anatomical section					
Native MRI					
Tracing					
Notes					

2B) AD

	199	200	201	202	203
Anatomical section					
Native MRI					
Tracing					
Notes					<p>1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Gyrus dentatus 4=Subiculum 5=Fimbria 6=Ambient cistern</p>

2B) AD

	204	205	206	207	208
Anatomical section					
Native MRI					
Tracing					
Notes					<p>Most posterior slice: level where the crus of fornix was visible in full profile</p>  <p>Sagittal view</p>

	209	210	211		
Anatomical section					
Native MRI					
Tracing					
Notes	1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Isthmus 4=Cornu Ammonis 5=Gyrus dentatus 6=Crus of fornix		1=Temporal horn of the lateral ventricle (uncal recess) 2=Parahippocampal gyrus 3=Isthmus 4=Cornu Ammonis		