

## Appendix I Hippocampal boundary definitions

	Tail	Body	Head
Lateral boundary	A line drawn through the alveus/fimbria at right angles to the fornix where the latter leaves the hippocampus. Continued as the lateral boundary, formed by the inferior part of the lateral ventricle and its temporal horn	Once the inferior end of the fornix was no longer visible as a distinct structure, the trace was taken from the superomedial angle of the temporal horn of the lateral ventricle. Initially the lateral border was continued as the medial wall of the temporal horn. More anteriorly it was defined in its lower part by the vertical portion of the medial end of the parahippocampal white matter	Initially (posteriorly) the temporal horn and lateral part of the parahippocampal gyrus. Moving more anteriorly, the boundary was once again entirely temporal horn cerebrospinal fluid into which the head of the hippocampus protrudes
Inferior boundary	Trace continued on the inferior border of the subiculum (abutting white matter of the parahippocampal gyrus inferior to it). Parahippocampal white matter was followed to its medial extremity and the line then continued horizontally to the medial limit of the grey matter	As for the tail, the inferior border of the subiculum where it joins the parahippocampal white matter was used and the line continued horizontally to the medial limit of the grey matter	As for the body of the hippocampus except for the anterior-most slices where white matter of the alveus (see superior border) joined the tip of the parahippocampal white matter. In these slices the trace was not continued to the medial limit of the medial temporal lobe beyond the junction of the parahippocampal gyrus with the alveus
Medial boundary	The medial limit of the hippocampal grey matter where it abuts the cerebrospinal fluid	Medial limit of the grey matter/cerebrospinal fluid boundary	(a) Posterior to point of junction of alveus with parahippocampal gyrus: (i) <i>When alveus visible</i> : from the end of the inferior boundary the medial edge of the temporal lobe was traced superiorly until level horizontally with the alveus. (ii) <i>When alveus not visible</i> : from the end of the inferior boundary the medial surface of the temporal lobe traced to the uncus notch. (b) In slices where alveus and parahippocampal gyrus white matter met: the medial border was essentially reduced to a point at this junction
Superior boundary	The trace from the medial border was continued over the superior aspect of the hippocampal formation as defined by the cerebrospinal fluid of the choroid fissure to join the start of the trace	Defined by cerebrospinal fluid of the choroid fissure. Anteriorly, the hook of tissue that arcs superolaterally over the medial part of the temporal horn was included. The trace was continued along the superior limit of the hippocampal grey matter (delimited by cerebrospinal fluid of temporal horn or by white matter of the stem of the temporal lobe) to join the start of the trace	(a) Posterior to point of junction of the alveus with parahippocampal gyrus: (i) <i>When alveus visible</i> : from the point on the medial border horizontal with the alveus, a line was traced horizontally laterally to meet the alveus and continued along its superior edge back to the starting point. If the alveus was not visible laterally, a straight line was constructed to connect with the starting point. (ii) <i>When alveus not visible</i> : the inferior horn of the lateral ventricle (especially uncus recess) and hippocampal digitations were used to guide the trace. (iii) <i>When none of the above structures visible</i> : a straight line was drawn from the uncus notch on the medial temporal surface back to the starting point. <i>If the uncus notch could not be identified</i> : a horizontal line was drawn connecting the middle of the medial border of the lateral ventricle to the surface of the uncus. (b) In slices where alveus and parahippocampal gyrus white matter met: from the junction of the two the alveus was followed laterally back to the start of lateral boundary. <i>If the alveus was not visible</i> in these slices, procedures as outlined in (ii) and (iii) above were used