Stereological measurements (the volume of a structure, or the number of elements it contains, such as neurons, synapses, etc) requires the integrity of the structure that is to be assessed (i.e., pieces cannot be missing). This is a challenging condition to achieve in a routine protocol, where one half of the brain is frozen, and the other half is used for neuropathology, meaning that small pieces have been cut out at multiple sites and levels in the brain, for routine assessment.

For this reason, requests for stereological examination of structures in HD or control brains will have to be assessed separately from the routine protocol. This may require an ongoing committee, to approve such requests and balance them against other requests, and the overall goals of maintaining the routine protocol. If the request is for tissue that can be provided from the routine protocol, without causing a protocol variance (e.g., a request for the superior temporal gyrus, if this is not being sampled for routine pathology), then it can be approved as a regular request.

However, if the request requires a structure that is usually sampled for routine neuropathology, then the committee should decide whether it would be possible to set aside a limited number of brains that would be handled specially, for this task. The committee could then decide if the best way to accomplish this would be to use both hemispheres for histology (one for routine neuropath, the other for stereology), or perhaps to avoid taking certain routine neuropath specimens in that series that would interfere with the stereology. (For example, if the request was for locus coeruleus, could the neuropathologist forego the locus coeruleus on a limited number of cases? Or would it be better to fix a slab at the locus coeruleus level from the hemisphere that is otherwise for freezing, to make sure that the neuropathology assessment is complete? Clearly this will have to be done on a case-by-case basis, and the exact method used will depend upon the judgment of the committee concerning competing priorities.)