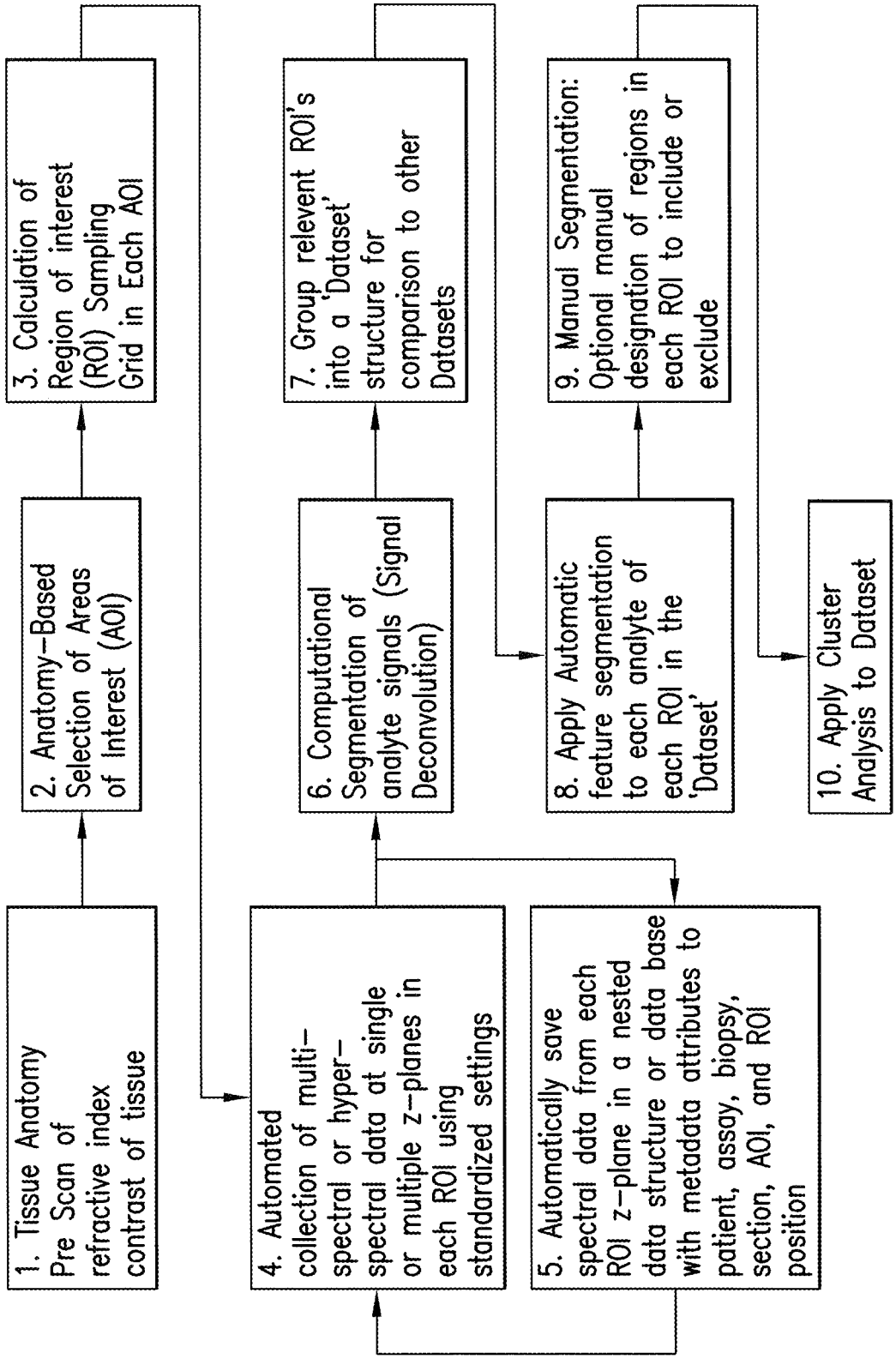
1. Tissue Anatomy Pre Scan of refractive index contrast of tissue
2. Anatomy–Based Selection of Areas of Interest (AOI)
3. Calculation of Region of interest (ROI) Sampling Grid in Each AOI
4. Automated collection of multi–spectral or hyper–spectral data at single or multiple z–planes in each ROI using standardized settings
5. Automatically save spectral data from each ROI z–plane in a nested data structure or data base with metadata attributes to patient, assay, biopsy, section, AOI, and ROI position
6. Computational Segmentation of analyte signals (Signal Deconvolution)
7. Group relevent ROI's into a 'Dataset' structure for comparison to other Datasets
8. Apply Automatic feature segmentation to each analyte of each ROI in the 'Dataset'
9. Manual Segmentation: Optional manual designation of regions in each ROI to include or exclude
10. Apply Cluster Analysis to Dataset

FIG. 2