Claims:

1. Method of identifying objects in a subject's ear, comprising the following steps:

- introducing an optical electronic imaging unit (40) and at least one light source into an ear canal of a subject's outer ear, wherein the electronic imaging unit (40) exhibits at least one optical axis (X; X1, X2) directed in a distal direction, especially directed at the eardrum of the subject's ear;
- using the electronic imaging unit (40) to capture at least one image from at least one eccentric observation point positioned on the at least one optical axis (X; X1, X2) and positioned eccentrically within the ear canal; and
- determining brightness or color information to identify objects shown in the at least one image by electronic means (44), in order to automatically identify the objects, especially the eardrum, wherein identifying objects comprises identifying the eardrum, the method further comprising the step of medically characterizing the eardrum based on at least one image captured of the eardrum, wherein medically characterizing the eardrum includes determining the spectral composition of reflections of the eardrum and/or identifying objects within the tympanic cavity of the subject and/or determining a curvature, especially a convexity, of the eardrum and/or pressurizing the eardrum and detecting mobility of the eardrum.