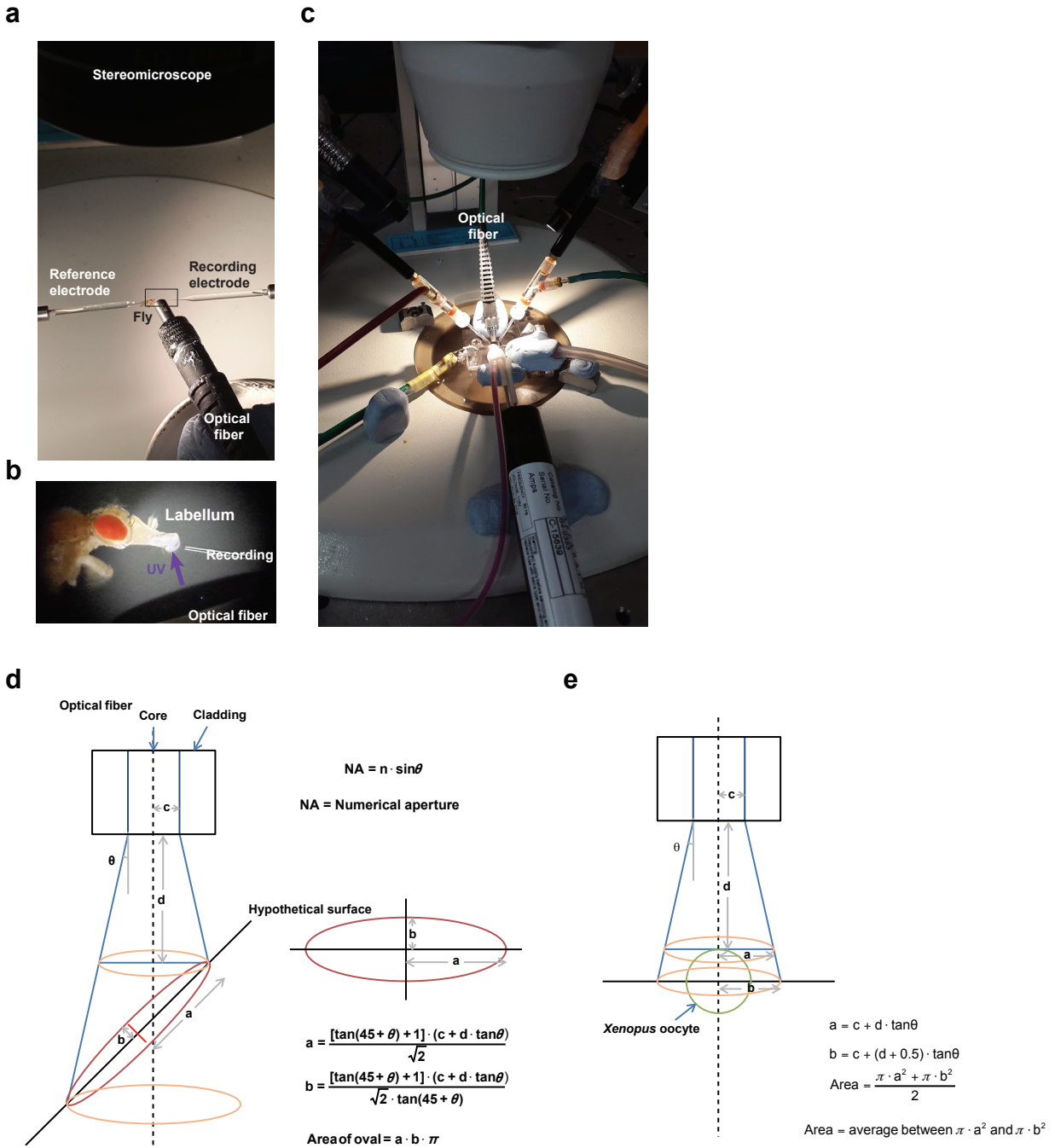


# Figure 1-figure supplement 1



**Figure 1-figure supplement 1: Setups for electrophysiological recordings of UV-evoked responses in *in vivo* taste neurons and *Xenopus* oocytes and estimation of light irradiance at the illuminated tissue. (a) Extracellular tip recording configured with the UV-emitting optical fiber cable. (b) Magnified image of the inset in (a). (c) Two-electrode voltage clamping setup with the UV-emitting optical fiber cable. (d) The oval shape of illumination surface resulting from the 45° angle between light beam and tissue surface was postulated to simplify estimation of the surface area of taste bristles contacting the light. NA values and inner diameters (2c) of the fiber core were given by manufacturers ( $n=1$  for air in conversion of NA to the angle theta). Distance to the surface (d) was measured microscopically using a fine ruler. (e) Different consideration was used for light intensity calculation for TEVC, as the configuration between the fiber and oocytes is simple and invariable.**