

Materials List for:

A Laboratory Method to Measure Contagious Yawning in Rats

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Materials

Name	Company	Catalog Number	Comments
Acrylic dividers	Handcrafted	Not available	Two dividers, one clear and one opaque, will have 24 holes each. The other two dividers, one clear and one opaque, will have no holes. See the main text for details of construction.
An R-based program	Benemérita Universidad Autónoma de Puebla	Not available	This is the program used to assess yawn contagion in rats. See the main text for information about the way the program is used.
Data sheets	The user can elaborate them	Not available	These forms will be used for the observer to record the frequency of yawning behaviour by viewing the video recordings. Alternatively, a notebook can be use provided you follow the suggestions given in the main text.
Desktop computer	Any maker	Not available	Make sure the computer has a video card capable of conveniently processing the video recordings of yawning behaviour.
Digital camcorders	Any maker	Not available	They will be used to video record yawning behaviour of each pair of rats; there will be 2 pairs of rats per experimental session.
Flash drive	Any maker	Not available	Each experimental session will last 60 min, and so you will require sufficient memory to store the video recording.
Glass cages	Handcrafted	Not available	Each cage (19 X 19 X 10 cm height) will have 24 holes (0.5 cm diameter) forming three rows in the middle of one of its sides. See the main text for more details about their construction. It is recommended to fabricate one extra cage in case one of them is accidentally broken.
Markers	Sharpie or any other maker	Not available	Permanent markers to number the rats. See the main text to see one way of using painting symbols on the rat's tail.
Pencils	Any maker	Not available	They are used by the observer to record the frequency of yawning. It is important that the observer has previously been trained to recognize yawning behaviour and operate the video player system.

R software	R Development Core Team	Not available	Download R at: http://cran.r-project.org/
Rail-like wooden bars	Handcrafted	Not available	They will be fixed in the middle of the rectangular wooden sheet forming a track, where a second wooden sheet is placed. See the main text for additional instructions for construction.
Rectangular table	Any maker	Not available	This is the table (approximately 2 x 1 m) where the inverted T-shaped table will be placed for performing the observation of yawning behaviour.
Sprague-Dawley male rats	Any local supplier of laboratory animals	Not available	Nine pairs of male rats per test situation are necessary for each group, familiar and unfamiliar rats, because with this sample size the interindividual variation that might exist in yawning frequency will not severely affect the conclusions drawn from the statistical analysis performed to the data.
Spreadsheet software	Microsoft	Not available	Excel will be the software used to store the yawning recordings initially recorded on the data sheets. Revise the main text for instructions about the recommended way of doing the transcription.
Square filter papers	Any maker	Not available	They are used for covering the cage's bottom.
Tripods	Any maker	Not available	They will be used for fixing the camcorders in front of each pair of observation cages.
Wooden Inverted T-shaped table	Handcrafted	Not available	Read the instructions in the main text to see the way of constructing it. If preferred, a different material to wood can be used. Make sure any material is as resistant as possible to the transmission of ultrasounds, which the rats might use for communication.