

Table 5. Meta-analysis of radius ratio and radius slope across five studies.

| Origin of Data | Notes | Radius Ratio | Radius Slope |
|---|--|---|--|
| Ibrahim and Wright (1975) obtained five whiskers from male Wistar rats between 3 – 6 months old | <p>page 52 in Ibrahim and Wright (1975): “In rats α, β, γ and δ vibrissae are 3-5 μm at their tips and 160-180 μm at the widest part excluding the club.”</p> <p>Figure 8A in Ibrahim and Wright (1975) provides data about the arc length of whiskers α, β, γ and δ</p> | <p>Smallest possible ratio: 80/2.5 = 32</p> <p>Largest possible ratio: 90/1.5 = 60</p> | <p>Arc length data (in mm) taken from Fig. 8A, ~140 days, in Ibrahim and Wright, 1975: $\alpha = 44$; $\beta = 51$, $\gamma = 52$, $\delta = 59$</p> <p>Min possible radius slope = (80 – 2.5)/59,000 = 1.31×10^{-3}</p> <p>Max possible radius slope = (90 – 1.5)/44,000 = 2.01×10^{-3}</p> |
| | <p>Figure 6 in Ibrahim and Wright (1975) plots diameter as a function of arc length for the β, A1, A2, A3, and A4 rat vibrissae. The resolution of Figure 6 is severely limited at the tip. The data were extracted from the figure and are provided as Table 3 in the present paper.</p> | <p>Based on data from Table 3 in the present paper</p> <p>Mean \pm SD: 27 ± 8</p> <p>Median: 24</p> | <p>Based on data from Table 3 in present paper</p> <p>Mean \pm SD: $2.16 \times 10^{-3} \pm 0.523 \times 10^{-3}$</p> <p>Median: 1.89×10^{-3}</p> |
| Neimark et al. (2003) obtained 18 whiskers from rats of unknown age, sex, and strain. | <p>Table 2 in Neimark et al, 2003 provides arc length, base diameter, and tip diameter for 18 whiskers. The whiskers include the Greek column and columns 1, 2, and 3 of rows A through E.</p> | <p>Based on Table 2 in Neimark et al, 2003</p> <p>Mean \pm SD: 29 ± 35</p> <p>Median: 23</p> | <p>Based on data from Table 2 in Neimark et al, 2003</p> <p>Mean \pm SD: $1.76 \times 10^{-3} \pm 0.457 \times 10^{-3}$</p> <p>Median: 1.75×10^{-3}</p> |
| Hartmann et al., (2003) obtained 24 whiskers from one adult female Sprague-Dawley rat. | <p>Figure 6c in Hartmann et al., 2003 shows a log-log plot of diameter vs. arc length for 24 rat whiskers. These original data are provided in Table 3 in the present paper, along with tip diameters.</p> | <p>Based on Table 3 in present paper</p> <p>Mean \pm SD: 36 ± 20</p> <p>Median = 33</p> | <p>Based on Table 3 in present paper</p> <p>Mean \pm SD: $2.26 \times 10^{-3} \pm 0.822 \times 10^{-3}$</p> <p>Median = 2.04×10^{-3}</p> |
| Voges et al. (2012) obtained 23 whiskers from 14-month old, female Wistar Hannover rats | <p>Figures 3 and 4 in Voges et al. (2012) show data for arc length, base diameter, and tip diameter. The original data were obtained from the authors and provided as Table 3 in the present paper</p> | <p>Based on data from Table 3 in present paper</p> <p>Mean \pm SD: 62 ± 31</p> <p>Median = 51</p> | <p>Based on data from Table 3 in present paper</p> <p>Mean \pm SD: $2.17 \times 10^{-3} \pm 0.553 \times 10^{-3}$</p> <p>Median = 2.02×10^{-3}</p> |
| Belli et al., 2016 (present study) obtained 52 whiskers from three male and female Sprague-Dawley rats between 3 – 13 months old. | <p>Data collected in the present paper and tabulated in Table 4.</p> | <p>Based on data from Table 4 in present paper</p> <p>Mean \pm SD: 29 ± 11</p> <p>Median = 28</p> | <p>Based on data from Table 4 in present paper</p> <p>Mean \pm SD: $2.48 \times 10^{-3} \pm 1.10 \times 10^{-3}$</p> <p>Median = 2.18×10^{-3}</p> |

Columns are as follows: origin of data; notes on the location of data in the referenced paper; mean, standard deviation, and median for radius ratio; and the mean, standard deviation, and median for radius slope. The radius ratio and radius slope columns for Ibrahim and Wright (1975) show only extrema for radius ratio because of the large measurement uncertainties in the tip and base diameters.