

Study Age, Sex, Strain, Whiskers (#)	Origin of Data	Radius Ratio	Radius Slope
Ibrahim and Wright, 1975 3 –6 months, Male, Wistar rat 5 whiskers	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.” Figure 8A in Ibrahim and Wright (1975) provides data about the arc length of whiskers α , β , γ and δ	Smallest possible ratio: $80/2.5 = 32$ Largest possible ratio: $90/1.5 = 60$	Arc length data (in mm) taken from Fig. 8A, ~140 days, in Ibrahim and Wright, 1975: $\alpha = 44$; $\beta = 51$, $\gamma = 52$, $\delta = 59$ Min possible radius slope = $(80 - 2.5)/59,000 = 1.31 \times 10^{-3}$ Max possible radius slope = $(90 - 1.5)/44,000 = 2.01 \times 10^{-3}$
	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.	Based on data from Table 3 in the present paper Mean \pm SD: 27 ± 8 Median: 24	Based on data from Table 3 in present paper Mean \pm SD: $2.16 \times 10^{-3} \pm 0.523 \times 10^{-3}$ Median: 1.89×10^{-3}
Neimark et al., 2003 Unknown age, sex, strain 18 whiskers	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.	Based on Table 2 in Neimark et al, 2003 Mean \pm SD: 29 ± 35 Median: 23	Based on data from Table 2 in Neimark et al, 2003 Mean \pm SD: $1.76 \times 10^{-3} \pm 0.457 \times 10^{-3}$ Median: 1.75×10^{-3}
Hartmann et al., 2003 Adult, Female, Sprague Dawley 24 whiskers	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.	Based on Table 3 in present paper Mean \pm SD: 36 ± 20 Median = 33	Based on Table 3 in present paper Mean \pm SD: $2.26 \times 10^{-3} \pm 0.822 \times 10^{-3}$ Median = 2.04×10^{-3}
Voges et al., 2012 14 months, Female, Wistar Hannover 23 whiskers	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	Based on data from Table 3 in present paper Mean \pm SD: 62 ± 31 Median = 51	Based on data from Table 3 in present paper Mean \pm SD: $2.17 \times 10^{-3} \pm 0.553 \times 10^{-3}$ Median = 2.02×10^{-3}
Belli et al., 2016 (present study) 3-13 months, Male & Female, Sprague-Dawley 52 whiskers	Data collected in the present paper and tabulated in Table 4.	Based on data from Table 4 in present paper Mean \pm SD: 29 ± 11 Median = 28	Based on data from Table 4 in present paper Mean \pm SD: $2.48 \times 10^{-3} \pm 1.10 \times 10^{-3}$ Median = 2.18×10^{-3}

Supplemental Table 2. This table contains the same information as *Table 5* in the main manuscript, but it has been formatted for readability and scientific clarity. The table shows a meta-analysis of radius ratio and radius slope across five studies. *Columns 1 and 2* provide the study information and origin of data, respectively. *Column 3* shows the mean, standard deviation, and median for the five studies for radius ratio. *Column 4* displays the mean, standard deviation, and median for the five studies for radius slope. The radius ratio and radius slope columns for Ibrahim and Wright (1975) show only extrema because of the large measurement uncertainties in the tip and base diameters. The identical version of this table can also be found on GitHub: <https://github.com/SeNSE-lab/RatWhiskerGeometry.git>.