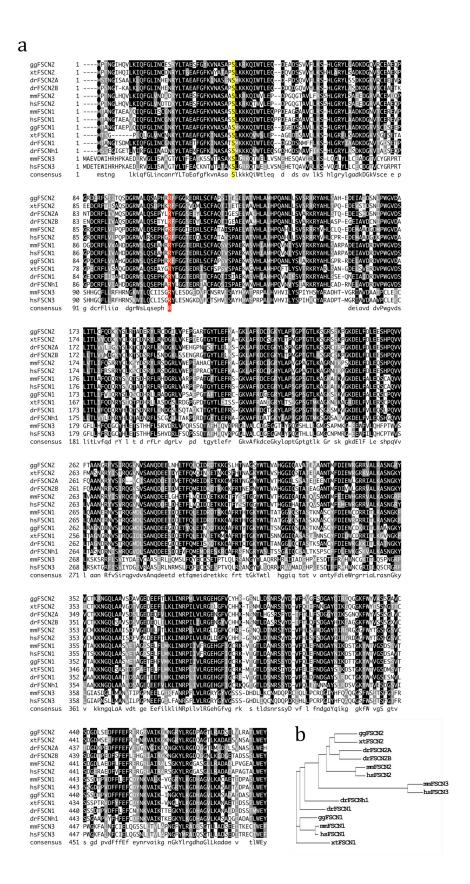
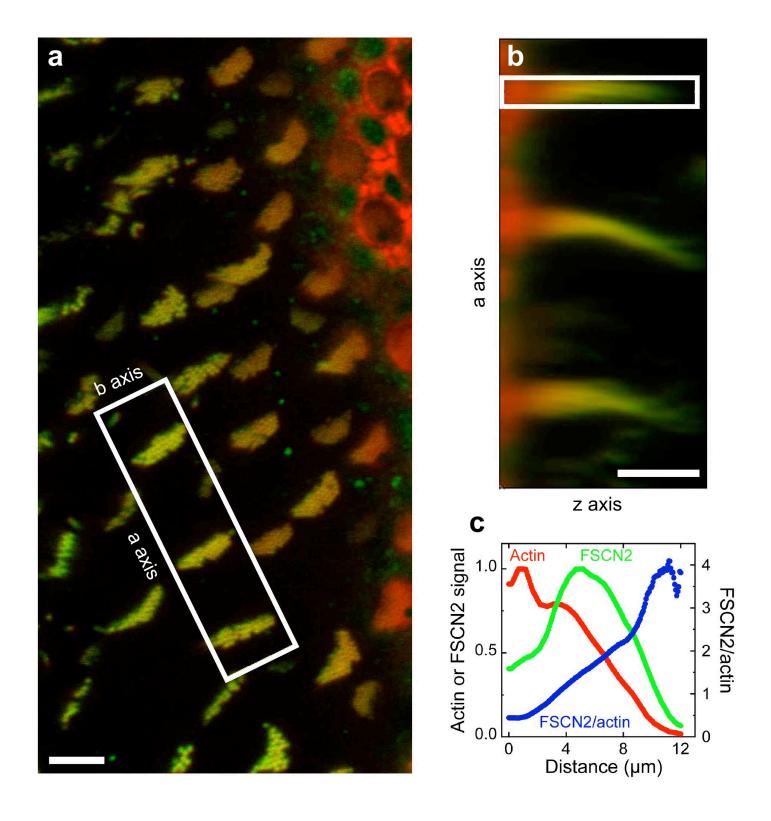
## **Supplemental Material**

**Supplementary Table 1.** Hearing loss variability among DBA-related inbred strain mice. Average ABR thresholds, standard errors, and sample sizes are given for each strain-age combination tested.

	4	4	9	ω	1	2			e.	e	, ω <b>ν</b> 4	'ω <i>Γ</i> 44	'ω <i>Γ</i> 444	. 'w <i>F</i> 4 4 4 5	- ω <i>Γ</i> 444-υ	'ω' κ <u>444</u> ±ω α	. 'w' <b>'</b> 444'-w' &w'	'ω <b>ν</b> 444-υ αυ-	- ω <i>γ444-</i> ω ωυ-ω	'ω' ν'4'4'4'ω' αυ''α'Ο'	. 'w <i>F444-</i> w & w'-800
	7	2	<del>-</del>	2		•	2	ci '	2i ' ←	⊘i	∠i	0, ' ← ← <del>4</del> .0;	vi, ← ← 4 vivi	vi	9 <u> </u>	ળ ' ન ન 4 ળળળળ 4	थ, ' ≒	ט, י – באטטטט אפיפי	ળ . ←	ળ . ←	ળ . ←
09	29	51	45	43	85	0	æ	95	95 98 98	95 98 98 78	95 95 98 78 78 82	95 98 98 78 82 94	95 98 78 84 84 84	95 98 87 82 84 95 95	8 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	88 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	88 95 95 95 95 95 95 95 95 95 95 95 95 95	88 95 95 95 95 95 95 95 95 95 95 95 95 95	88 82 88 89 87 88 88 88 88 88 88 88 88 88 88 88 88	95 95 97 95 95 95 95 97 90 90
1.7	9.7	1.3	1.2	0.0	1	C	۲.5	Z.5 -	2.5 - 12.1	6.5 - 12.1 4.4	2.5 - 12.1 4.4 3.3	6.2 1.2.1 1.4.4 3.3 1.6	6.5 12.1 4.4 3.3 4.7	C.2 1.24 4.4 5.3 6.5 6.5	2.2 1.24 4.4 2.33 4.4 6.55 6.5 9.3	c.2 1.24 4.4 1.25 4.7 1.7 1.7 1.7 1.7	c.2 121 4.4 4.7 7.7 6.6 6.5 7.7	c.2 121 4.4 4.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7	c.2 121 4.4 4.7 5.33 4.4 4.3 6.5 6.5 6.5 4.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6	c.2 1.24.4.6.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.	c.2 1 4.8 2.4 4.8 6.0 6.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7
28	42	19	22	25	20	0	33	33 35	33 23 33	33 35 53 17	33 35 53 17 18	33 35 53 17 18 36	33 35 53 17 18 36 39	33 35 17 18 36 39 45	33 35 17 18 36 39 45 73	33 35 17 17 36 39 45 73	33 35 36 39 39 45 73 53	33 35 36 39 39 45 73 73 62	33 36 36 37 38 39 39 45 45 53 65	33 35 36 36 37 38 38 39 45 45 53 70	33 35 36 36 37 38 39 45 45 45 45 45 45 45 45 45 45 45 45 45
1.7	2.8	2.1	2.5	0.0	1	0	5.	S 1	6.3	6.3	6.3 6.0 6.0	6.0 6.0 7.1 7.1 7.1	5 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	5 6. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	6 6. 0. 0. 1. 4. E. 1. 4. E. 1. E.	5 0.0 5 0.0 5 0.0 7. 1.4 E. 1.1 7. 1 7.	5 6. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	5 0. 0. 0. 1. 4. 8. 1. 1. 8. 4. 5. 1. 8. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	5 0. 0. 0. 1. 4. E. 1. E. 2. 4. 4. E. 2. E. 2	6.0 6.0 6.0 7.1 7.1 7.1 7.1 7.0 10.0	6.0 6.0 6.0 7.1 7.1 7.1 7.0 7.0 7.0 7.0 7.0
43	40	30	56	30	20	20		20	50 49	50 45 42	50 4 49 43	064 44 4 08 28 1	064 444 08 284 84 44 44 44 44 44 44 44 44 44 44 44 44 4	064 44444 08 28 1 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8 4	0 6 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	0 6 4 4 4 4 4 4 6 0 6 6 6 6 6 6 6 6 6 6	0 6 4 4 4 4 4 4 6 4 6 6 6 6 6 6 6 6 6 6	0 6 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	0.0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	0.0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	0.0 4 4 4 4 4 4 4 4 4 4 4 6 6 8 8 6 6 6 6 6
1.7	2.0	1.3	1.0	0.0	Ī	2.0		ı	4.0	4.0	- 4. 0.0 0.0 4.4	1 4 0.0 4 4.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8	1 4 0.0 4 4 5 0.0 4 4 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1 4 0 0 4 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 0.0 0.0 4.4 4.4 4.5 4.5 4.5 E.1 1.3	- 4.0 0.0 4.4 4.2 1.3 7.1 7.1	- 4.0 0.0 4.4 4.4 4.4 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	- 0.0 0.0 0.0 4.4 4.4 4.4 4.3 4.3 4.3 3.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8	- 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	- 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	- 4 0.0 0.4 4.2 4.2 4.4 6.0 0.0 4.4 8.4 4.2 4.2 4.2 4.2 4.2 4.2 4.2 4.2 4.2 4
48	22	39	36	35	20	20		20	50 55	50 55 40	50 55 40 47	55 55 40 47 48	55 40 47 48 48	55 64 74 74 74 75	55 04 44 44 15 45	55 64 74 74 75 75 75 75 75 75 75 75 75 75 75 75 75	55 64 74 74 75 75 75 75 75 75 75 75 75 75 75 75 75	55 04 44 45 43 60 55	55 44 44 45 43 60 60 67	50 54 44 44 54 60 67 73	50 44 44 43 43 60 60 67
ю	5	4	5	2	_	0	1	1 ←	1 — ro	<b>1</b> ⊢ი	v ດ ດາ 1 − ທ	1 <i>-</i> 10	1-ro ww44	1-10 ww444	1-rv ww4444	1 – rv   w w 4 4 4 4   0	1-10 ww4444 @b	1-rv ww4444 rorv	1-n ww4444 @/nº5	1-10 ww4444 @ru20	1-10 884444 OLBC14
12	48	6.5	41	16	7.5	T.	2	17	17 28	28 4 4	2.7 2.7 2.7 3.7	2 4 2 8 4 7 .5 .5 .5 . 4 . 4 . 4 . 4 . 4 . 4 . 4 .	25 4 4 7.5 7.5	2 4 2 8 4 7 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	2 4 5 7 7 7 5 2 8 8 7 5 1 5 2 9 5 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	2.7 4 28 27 7.5 4 28 2.5 8 3.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8	2.7 4 28 4 29 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	2.7 4 28 4 29 20 20 20 20 20 20 20 20 20 20 20 20 20	2.5 4 7.5 7.5 7.5 8.0 8.0 12.0	25 4 4 28 7.5 7.5 7.5 8.0 8.0 7.0 7.0	25 4 7.5 4 7.5 7.5 8.0 8.0 17.0 23.0
DBA/1J	DBA/1J	DBA/2HaSmnJ	DBA/2HaSmnJ	DBA/2HaSmnJ	DBA/2DeJ	DBA/2DeJ		DBA/2DeJ	DBA/2DeJ DBA/2DeJ	DBA/2DeJ DBA/2DeJ DBA/2NCrl	DBA/2DeJ DBA/2DeJ DBA/2NCrl DBA/2NCrl	DBA/2DeJ DBA/2DeJ DBA/2NCrl DBA/2NCrl DBA/2NCrl	DBA/2DeJ DBA/2DeJ DBA/2NCrl DBA/2NCrl DBA/2NCrl	DBA/2DeJ DBA/2DeJ DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl	DBA/2DeJ DBA/2DeJ DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl	DBA/2DeJ DBA/2DeJ DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl	DBA/2DeJ DBA/2DeJ DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2J DBA/2J	DBA/2DeJ DBA/2DeJ DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2J DBA/2J DBA/2J	DBA/2DeJ DBA/2DeJ DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2J DBA/2J DBA/2J	DBA/2DeJ DBA/2DeJ DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2J DBA/2J DBA/2J DBA/2J	DBA/2DeJ DBA/2DeJ DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2NCrl DBA/2J DBA/2J DBA/2J DBA/2J DBA/2J DBA/2J
	12 3 48 1.7 43 1.7 28 1.7 60	12 3 48 1.7 43 1.7 28 1.7   48 5 57 2.0 40 2.8 42 7.6	12     3     48     1.7     43     1.7     28     1.7     60       48     5     57     2.0     40     2.8     42     7.6     59       1     6.5     4     39     1.3     30     2.1     19     1.3     51	12 3 48 1.7 43 1.7 28 1.7 60   48 5 57 2.0 40 2.8 42 7.6 59   6.5 4 39 1.3 30 2.1 19 1.3 51   14 5 36 1.0 26 2.5 22 1.2 45	12     3     48     1.7     43     1.7     28     1.7     60       48     5     57     2.0     40     2.8     42     7.6     59       1     6.5     4     39     1.3     30     2.1     19     1.3     51       1     14     5     36     1.0     26     2.5     22     1.2     45       1     16     2     35     0.0     30     0.0     25     0.0     43	12 3 48 1.7 43 1.7 28 1.7 60   48 5 57 2.0 40 2.8 42 7.6 59   6.5 4 39 1.3 30 2.1 19 1.3 51   14 5 36 1.0 26 2.5 22 1.2 45   16 2 35 0.0 30 0.0 25 0.0 43   7.5 1 50 - 50 - 85	12 3 48 1.7 43 1.7 28 1.7 60   48 5 57 2.0 40 2.8 42 7.6 59   6.5 4 39 1.3 30 2.1 19 1.3 51   14 5 36 1.0 26 2.5 22 1.2 45   16 2 35 0.0 30 0.0 25 0.0 43   7.5 1 50 - 50 50 0.0 33 2.5 88	12   3   48   1.7   43   1.7   28   1.7   60     48   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   -   86     17   1   50   -   50   -   86     17   1   50   -   50   -   95	12   3   48   1.7   43   1.7   28   1.7   60     48   5   5   57   2.0   40   2.8   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   -   86     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   -   36   -   95     17   1   50   -   50   -   35   12.1   98     28   5   49   6.3   5   6.3   6.3   6.3   6.3   6.3   6.3   6.3   6.3   6.3   6.3   6.3   6.3   6.3   6.3   6.3   6.3   6.3   6.3 <td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   4.7   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   -   50   -   85     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   -   35   -   95     28   5   4.0   0.0   42   6.0   17   4.4   78</td> <td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   -   50   -   86     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   -   35   12.1   95     28   5   4.0   0.0   49   6.3   53   12.1   98     7.5   3   47   4.4   43   1.7   44   78   77</td> <td>12   3   48   1.7   43   1.7   28   1.7   60     48   5   57   2.0   40   2.8   42   7.6   60     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   -   35   -   95     28   5   4.0   0.0   49   6.3   53   12.1   98     7.5   3   47   4.4   41   43   1.7   44   78   94     4   4   4   4   4   4   4   4   4   4   4<!--</td--><td>12   3   48   1.7   43   1.7   28   1.7   60     48   5   5   5   5   2.0   40   2.8   1.7   60     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   -   35   -   95     28   5   4.0   49   6.3   53   12.1   98     4   3   47   4.4   43   1.7   44   44   43   1.7   44   84     17   4   4   4.8   4.8   41   4.3   3.3   99   7.4   84</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   5   5   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   -   30   -   36     17   1   50   -   50   -   36   -   36     28   5   4.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.0   17   4.4   78     17   4   44   2.4   43   1.7   18   3.3   95     17   4   44   2.4   43   1.5   45   6.5   95     <t< td=""><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   -   50   -   85     17   1   50   -   50   -   35   -   95     28   5   4.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.0   17   44   78     7.5   3   47   4.4   4.3   1.7   44   74   78     17   4   44   2.4   43   1.7   44   84   44   44   43   1.7   44   84     21   4   44   2.4   43   1.5   45</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   36   1.0   26   2.5   22   1.3   51     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   -   35   0.0   43   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   3   40   0.0   40   6.3   53   12.1   98     14   4   4   4.4   4.4   4.3   4.4   4.4   4.4   4.4   4.4   4.4   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.3   4.3   4.3   4.3   4.3   4.3</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   25   0.0   43     28   5   4   40   0.0   40   6.3   53   2.5   88     17   4   4   4.4   4.4   4.3   1.7   44   78     7.5   3   40   0.0   42   6.0   17   44   78     17   4   4.8   4.8   4.4   4.3   1.7   44   78     21   4   4.4   4.3   1.5   44   4.3   1.7<!--</td--><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     15   2   50   50   50   0.0   25   0.0   43     17   4   3   40   0.0   49   6.3   53   2.5   88     17   4   4   4.4   4.4   4.3   1.7   4.4   78     17   4   4.4   4.4   4.4   4.3   1.7   4.4   74   78     17   4   4.4   4.8   4.4   4.3   1.5   4.5   6.5   95     21   4   4.4   4.3   4.4   4.3</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   45     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   40   0.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.0   17   4.4   78     17   4   44   2.4   43   3.3   39   7.4   84     17   4   44   2.4   43   3.3   39   7.4   84  <tr< td=""><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   -   36   -   96     17   1   50   -   50   -   35   -   96     28   5   4.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.3   53   12.1   98     7.5   3   47   4.4   4.3   4.3   4.3   1.7   4.4   4.4     17   4   4.4   2.4   4.3   4.4   4.3   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   4   39   1.3   30   2.1   19   1.3   51     14   5   4   36   1.0   26   2.5   22   1.2   45     15   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   40   0.0   49   6.3   53   12.1   98     28   5   5   4.0   40   43   43   3.3   39   74   44     4   4   4.4   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4</td></tr<></td></td></t<></td></td>	12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   4.7   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   -   50   -   85     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   -   35   -   95     28   5   4.0   0.0   42   6.0   17   4.4   78	12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   -   50   -   86     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   -   35   12.1   95     28   5   4.0   0.0   49   6.3   53   12.1   98     7.5   3   47   4.4   43   1.7   44   78   77	12   3   48   1.7   43   1.7   28   1.7   60     48   5   57   2.0   40   2.8   42   7.6   60     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   -   35   -   95     28   5   4.0   0.0   49   6.3   53   12.1   98     7.5   3   47   4.4   41   43   1.7   44   78   94     4   4   4   4   4   4   4   4   4   4   4 </td <td>12   3   48   1.7   43   1.7   28   1.7   60     48   5   5   5   5   2.0   40   2.8   1.7   60     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   -   35   -   95     28   5   4.0   49   6.3   53   12.1   98     4   3   47   4.4   43   1.7   44   44   43   1.7   44   84     17   4   4   4.8   4.8   41   4.3   3.3   99   7.4   84</td> <td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   5   5   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   -   30   -   36     17   1   50   -   50   -   36   -   36     28   5   4.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.0   17   4.4   78     17   4   44   2.4   43   1.7   18   3.3   95     17   4   44   2.4   43   1.5   45   6.5   95     <t< td=""><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   -   50   -   85     17   1   50   -   50   -   35   -   95     28   5   4.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.0   17   44   78     7.5   3   47   4.4   4.3   1.7   44   74   78     17   4   44   2.4   43   1.7   44   84   44   44   43   1.7   44   84     21   4   44   2.4   43   1.5   45</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   36   1.0   26   2.5   22   1.3   51     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   -   35   0.0   43   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   3   40   0.0   40   6.3   53   12.1   98     14   4   4   4.4   4.4   4.3   4.4   4.4   4.4   4.4   4.4   4.4   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.3   4.3   4.3   4.3   4.3   4.3</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   25   0.0   43     28   5   4   40   0.0   40   6.3   53   2.5   88     17   4   4   4.4   4.4   4.3   1.7   44   78     7.5   3   40   0.0   42   6.0   17   44   78     17   4   4.8   4.8   4.4   4.3   1.7   44   78     21   4   4.4   4.3   1.5   44   4.3   1.7<!--</td--><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     15   2   50   50   50   0.0   25   0.0   43     17   4   3   40   0.0   49   6.3   53   2.5   88     17   4   4   4.4   4.4   4.3   1.7   4.4   78     17   4   4.4   4.4   4.4   4.3   1.7   4.4   74   78     17   4   4.4   4.8   4.4   4.3   1.5   4.5   6.5   95     21   4   4.4   4.3   4.4   4.3</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   45     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   40   0.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.0   17   4.4   78     17   4   44   2.4   43   3.3   39   7.4   84     17   4   44   2.4   43   3.3   39   7.4   84  <tr< td=""><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   -   36   -   96     17   1   50   -   50   -   35   -   96     28   5   4.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.3   53   12.1   98     7.5   3   47   4.4   4.3   4.3   4.3   1.7   4.4   4.4     17   4   4.4   2.4   4.3   4.4   4.3   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   4   39   1.3   30   2.1   19   1.3   51     14   5   4   36   1.0   26   2.5   22   1.2   45     15   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   40   0.0   49   6.3   53   12.1   98     28   5   5   4.0   40   43   43   3.3   39   74   44     4   4   4.4   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4</td></tr<></td></td></t<></td>	12   3   48   1.7   43   1.7   28   1.7   60     48   5   5   5   5   2.0   40   2.8   1.7   60     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   -   35   -   95     28   5   4.0   49   6.3   53   12.1   98     4   3   47   4.4   43   1.7   44   44   43   1.7   44   84     17   4   4   4.8   4.8   41   4.3   3.3   99   7.4   84	12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   5   5   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   -   30   -   36     17   1   50   -   50   -   36   -   36     28   5   4.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.0   17   4.4   78     17   4   44   2.4   43   1.7   18   3.3   95     17   4   44   2.4   43   1.5   45   6.5   95 <t< td=""><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   -   50   -   85     17   1   50   -   50   -   35   -   95     28   5   4.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.0   17   44   78     7.5   3   47   4.4   4.3   1.7   44   74   78     17   4   44   2.4   43   1.7   44   84   44   44   43   1.7   44   84     21   4   44   2.4   43   1.5   45</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   36   1.0   26   2.5   22   1.3   51     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   -   35   0.0   43   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   3   40   0.0   40   6.3   53   12.1   98     14   4   4   4.4   4.4   4.3   4.4   4.4   4.4   4.4   4.4   4.4   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.3   4.3   4.3   4.3   4.3   4.3</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   25   0.0   43     28   5   4   40   0.0   40   6.3   53   2.5   88     17   4   4   4.4   4.4   4.3   1.7   44   78     7.5   3   40   0.0   42   6.0   17   44   78     17   4   4.8   4.8   4.4   4.3   1.7   44   78     21   4   4.4   4.3   1.5   44   4.3   1.7<!--</td--><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     15   2   50   50   50   0.0   25   0.0   43     17   4   3   40   0.0   49   6.3   53   2.5   88     17   4   4   4.4   4.4   4.3   1.7   4.4   78     17   4   4.4   4.4   4.4   4.3   1.7   4.4   74   78     17   4   4.4   4.8   4.4   4.3   1.5   4.5   6.5   95     21   4   4.4   4.3   4.4   4.3</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   45     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   40   0.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.0   17   4.4   78     17   4   44   2.4   43   3.3   39   7.4   84     17   4   44   2.4   43   3.3   39   7.4   84  <tr< td=""><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   -   36   -   96     17   1   50   -   50   -   35   -   96     28   5   4.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.3   53   12.1   98     7.5   3   47   4.4   4.3   4.3   4.3   1.7   4.4   4.4     17   4   4.4   2.4   4.3   4.4   4.3   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   4   39   1.3   30   2.1   19   1.3   51     14   5   4   36   1.0   26   2.5   22   1.2   45     15   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   40   0.0   49   6.3   53   12.1   98     28   5   5   4.0   40   43   43   3.3   39   74   44     4   4   4.4   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4</td></tr<></td></td></t<>	12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   -   50   -   85     17   1   50   -   50   -   35   -   95     28   5   4.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.0   17   44   78     7.5   3   47   4.4   4.3   1.7   44   74   78     17   4   44   2.4   43   1.7   44   84   44   44   43   1.7   44   84     21   4   44   2.4   43   1.5   45	12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   36   1.0   26   2.5   22   1.3   51     16   2   35   0.0   30   0.0   25   0.0   43     7.5   1   50   -   50   -   35   0.0   43   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   3   40   0.0   40   6.3   53   12.1   98     14   4   4   4.4   4.4   4.3   4.4   4.4   4.4   4.4   4.4   4.4   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.3   4.3   4.3   4.3   4.3   4.3	12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   25   0.0   43     28   5   4   40   0.0   40   6.3   53   2.5   88     17   4   4   4.4   4.4   4.3   1.7   44   78     7.5   3   40   0.0   42   6.0   17   44   78     17   4   4.8   4.8   4.4   4.3   1.7   44   78     21   4   4.4   4.3   1.5   44   4.3   1.7 </td <td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     15   2   50   50   50   0.0   25   0.0   43     17   4   3   40   0.0   49   6.3   53   2.5   88     17   4   4   4.4   4.4   4.3   1.7   4.4   78     17   4   4.4   4.4   4.4   4.3   1.7   4.4   74   78     17   4   4.4   4.8   4.4   4.3   1.5   4.5   6.5   95     21   4   4.4   4.3   4.4   4.3</td> <td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   45     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   40   0.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.0   17   4.4   78     17   4   44   2.4   43   3.3   39   7.4   84     17   4   44   2.4   43   3.3   39   7.4   84  <tr< td=""><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   -   36   -   96     17   1   50   -   50   -   35   -   96     28   5   4.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.3   53   12.1   98     7.5   3   47   4.4   4.3   4.3   4.3   1.7   4.4   4.4     17   4   4.4   2.4   4.3   4.4   4.3   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   4   39   1.3   30   2.1   19   1.3   51     14   5   4   36   1.0   26   2.5   22   1.2   45     15   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   40   0.0   49   6.3   53   12.1   98     28   5   5   4.0   40   43   43   3.3   39   74   44     4   4   4.4   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4</td></tr<></td>	12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     15   2   50   50   50   0.0   25   0.0   43     17   4   3   40   0.0   49   6.3   53   2.5   88     17   4   4   4.4   4.4   4.3   1.7   4.4   78     17   4   4.4   4.4   4.4   4.3   1.7   4.4   74   78     17   4   4.4   4.8   4.4   4.3   1.5   4.5   6.5   95     21   4   4.4   4.3   4.4   4.3	12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   45     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   40   0.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.0   17   4.4   78     17   4   44   2.4   43   3.3   39   7.4   84     17   4   44   2.4   43   3.3   39   7.4   84 <tr< td=""><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   -   36   -   96     17   1   50   -   50   -   35   -   96     28   5   4.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.3   53   12.1   98     7.5   3   47   4.4   4.3   4.3   4.3   1.7   4.4   4.4     17   4   4.4   2.4   4.3   4.4   4.3   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4</td><td>12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   4   39   1.3   30   2.1   19   1.3   51     14   5   4   36   1.0   26   2.5   22   1.2   45     15   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   40   0.0   49   6.3   53   12.1   98     28   5   5   4.0   40   43   43   3.3   39   74   44     4   4   4.4   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4</td></tr<>	12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     6.5   4   39   1.3   30   2.1   19   1.3   51     14   5   36   1.0   26   2.5   22   1.2   45     7.5   1   50   -   50   -   36   -   96     17   1   50   -   50   -   35   -   96     28   5   4.0   49   6.3   53   12.1   98     4   3   40   0.0   42   6.3   53   12.1   98     7.5   3   47   4.4   4.3   4.3   4.3   1.7   4.4   4.4     17   4   4.4   2.4   4.3   4.4   4.3   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4	12   3   48   1.7   43   1.7   28   1.7   60     6.5   4   5   57   2.0   40   2.8   42   7.6   59     14   5   4   39   1.3   30   2.1   19   1.3   51     14   5   4   36   1.0   26   2.5   22   1.2   45     15   1   50   -   50   0.0   25   0.0   43     17   1   50   -   50   0.0   33   2.5   88     17   1   50   -   50   0.0   33   2.5   88     17   4   40   0.0   49   6.3   53   12.1   98     28   5   5   4.0   40   43   43   3.3   39   74   44     4   4   4.4   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4   4.3   4.4



**Suppl. Fig. 1.** Fascin sequences are highly homologous across species. **a.** Multiple protein sequence alignments done in ClustalW2. Serine 39, which is a regulatory phosphorylation site, is highlighted in yellow. Arginine 109, which is mutated to a histidine in DBA/2J mice, is highlighted in red. **b.** Phylogenetic tree of fascin genes. Branch lengths are proportional to the amount of evolutionary distance between related genes.



**Suppl. Fig. 2.** FSCN2 concentration towards tips in P10 mouse utricle hair bundles. Using ImageJ, an a-b-z stack was generated from a confocal stack of bundles labeled with anti-FSCN2 (a single slice of that stack is shown in **a**, with the area used for the a-b-z stack indicated with a box). That stack was flattened along the b-axis using average z-projection in ImageJ, generating the image in **b**. Using the Plot Profile function in ImageJ, profiles of red (actin) and green (FSCN2) fluorescence were generated. These profiles and the FSCN2/actin ratio were plotted in **c**. Note that the FSCN2/actin ratio is highest in the last ~3 μm of the hair bundle. Similar profiles were observed in other hair bundles.