Supplementary Figure 1. Expression of SeV RNA in lung (**a**) and trachea (**b**) at various time points after infection ($5x10^4$ pfu). Each bar represents the mean SeV gene expression normalized to *tbp* ± SE. Blue bars: *bmal1-wt* (n=4-14 per time point). Red bars: *bmal1*$^{-/-}$ littermates (n=4-6 per time point). Each group is composed of equal or near-equal proportions of male and female animals, pooled from 2 independent experiments. *p<0.05 *bmal-wt* vs *bmal*$^{-/-}$ (Student's 2-Tailed t-test).

Supplementary Figure 2. SeV RNA expression in *per*$^{-/-}$ and *wt* mice at 5 days post infection ($5x10^4$ pfu). Each bar represents the mean SeV gene expression normalized to *tbp* ± SE. Black bar: *wt* (n=23). Orange bar: *per2*$^{-/-}$ (n=23). Each group is pooled from 4 independent experiments.

Supplementary Figure 3. (a) Recombination efficiency in the lungs of tamoxifen-treated *bmal1-iKO* mice as measured by qPCR (see **Fig. 2c** and methods for a detailed description). Each bar represents the mean *bmal1* recombination index ± SE. Dark blue bar: *wt* mice fed tamoxifen-containing chow (n=8). Light blue bar: global *bmal1* heterozygous mice fed regular chow (n=4). Red bar: *bmal1-iKO* mice fed tamoxifen containing chow (n=5). *p<0.05 tamoxifen-fed *wt* vs tamoxifen-fed *bmal1-iKO* (Student's 2-Tailed t-test). (**b**) Viral RNA expression measured by qPCR at 5 days post inoculation with SeV ($5x10^4$ pfu). Each bar represents the mean SeV gene expression normalized to *tbp* ± SE. Brown bar: *wt* mice fed regular chow (n=4). Blue bar: *wt* mice fed chow containing tamoxifen (n=8). Red bar: *bmal1-iKO* mice fed chow containing tamoxifen (n=5). *p<0.05 tamoxifen-fed *wt* vs tamoxifen-fed *bmal1-iKO* (Student's 2-Tailed t-test).

Supplementary Figure 4. Cellular and inflammatory features of SeV bronchiolitis are similar in *bmal1*$^{-/-}$ and *wt* animals. (**a**) Representative micrographs of airways in *bmal1*$^{-/-}$ and *wt* lungs at SeV 5 DPI. Green represents Mac3^{+} stain, red represents Cleaved Caspase 3, and blue represents DAPI (nuclear stain). **(b-e)** Quantification of granulocyte (**b**), dendritic cell (**c**), alveolar macrophage (**d**), and cytotoxic T-cell (**e**) number using whole lung flow cytometry. Lungs were obtained from SeV infected animals at various days post-infection (5x10^{4} pfu). Bars represent mean cell counts per 10,000 events ± SE. Blue bars: *bmal1-wt* (n=6-12 per time point). Red bars: *bmal1*$^{-/-}$ littermates (n=6-12 per time point). Data were pooled from 2 independent experiments utilizing equal proportions of male and female mice. See **Supplementary Fig. 9** for representative gates. $^{a}p<0.05$ versus sham (PBS) infected *wt* controls, $^{b}p<0.05$ *bmal1*$^{-/-}$ vs. *wt* (Student's 2-Tailed t-test).

Supplementary Figure 5. Gene expression of *ifnb1* (**a**), *ifnl3*, (**b**) and *ifng* (**c**). Each bar represents the mean expression normalized to *tbp* ± SE at various time points after infection with SeV (5x10^{4} pfu). Blue bars: *bmal1-wt* (n=4-14 per time point). Red bars: *bmal1*$^{-/-}$ littermates (n=4-6 per time point). Each group is composed of equal or near-equal proportions of male and female animals pooled from 2 independent rounds of SeV infection. *p<0.05 *bmal-wt* vs *bmal*$^{-/-}$ (Student's 2-Tailed t-test).

Supplementary Figure 6. Genotype differences in BAL cytokine concentration at 5 days post SeV infection (5x10^{4} pfu) reflect viral RNA expression. (**a**) BAL cytokine concentration at 5 days post infection. Each bar represents the mean concentration of cytokines ± SE. Blue bars: *bmal1-wt* (n=4-14 per time point). Red bars: *bmal1*$^{-/-}$ littermates (n=4-6 per time point). Each group is composed of equal or near-equal proportions of male and female animals pooled from 2 independent rounds of SeV infection. Statistical significance (p<0.05, Student's 2-Tailed t-test)

is denoted by red highlighting of cytokine names. (**b**) BAL cytokine concentration normalized to SeV RNA expression. Each bar represents the mean cytokine concentration normalized to the mean SeV gene expression. SeV gene expression was measured by qPCR and conveyed as a ratio of SeV RNA to *tbp* expression. Blue bars: *bmal1-wt* (n=4-14 per time point). Red bars: *bmal1*$^{-/-}$ littermates (n=4-6 per time point). Statistical significance ($p<0.05$, Student's 2-Tailed t-test) is denoted by red highlighting of cytokine names. The loss of statistical significance after adjustment for Viral RNA suggests that differences in viral load between SeV -infected *bmal1*$^{-/-}$ and *wt* mice can account for the observed differences in cytokine expression.

Supplementary Figure 7. Effect of SeV infection time (**a, e**) and sample collection time (**b-d**) on expression of select genes at 49 DPI. (**a**) *muc5ac/tbp* ratios (Mean ± SE) in lungs of mice infected with SeV ($1x10^5$ pfu) at ZT0, ZT6, ZT12, and ZT18, and sacrificed on 49 DPI (n=8-12 per time point). For the purposes of controlling for sample collection time, half of the lungs for each group were collected at ZT0 and half at ZT12. Statistical significance via 1-way ANOVA is shown. Depicted to the right is lung *muc5ac* expression in sham (PBS) treated *bmal1*$^{-/-}$ and *wt* male mice (red and black bars, respectively, n=6 per group), SeV infected *wt* mice averaged across all infection and collection times (n=49), and well as SeV infected *bmal1*$^{-/-}$ mice ($5x10^4$ pfu, n=3). $^{a}p<0.05$ SeV-infected vs. PBS control, $^{b}p<0.05$ SeV-infected *wt* vs *bmal1*$^{-/-}$ mice (Student's 2-Tailed t-test). (**b**) *muc5ac/tbp* ratios (Mean ± SE) in lungs of *wt* male mice infected with SeV at various times ($1x10^5$ pfu) and sacrificed at either ZT0 and ZT12 on 49 DPI (n=16 per group). For the purposes of controlling for SeV infection time, 4 lungs from each group were infected at ZT0, ZT6, ZT12 and ZT18. (**c**) Temporal expression of *bmal1* in *wt* mouse lungs 49 days post SeV infection (green circles, n=6 per time point, infection time=ZT6), and in untreated control lungs from two independent time series[9] (black diamonds, n=2-3 per time

point). Data points represent the mean expression ± SE normalized to *tbp*. The depicted significance values were generated by 1-way ANOVA. Rhythm parameter estimates generated by COSOPT[9] are depicted to the right of the graph. *p<0.05 SeV-infected *wt* vs. uninfected *wt* obtained at the same sample collection time (Student's 2-Tailed t-test). (**d**) *bmal1/tbp* ratios (Mean ± SE) in lungs of *wt* male mice infected with SeV at the indicated times ($1x10^5$ pfu, green bars) and collected on 49 DPI at either ZT0 or ZT12 (n=4-6 per group). For comparison, lung *bmal1* expression in untreated mice are depicted in parallel (black bars). Significance values depicted in the panel represent 1-way ANOVA analysis of SeV-infected mice for a given collection time. *p<0.05 SeV-infected *wt* vs. uninfected *wt* obtained at the same sample collection time (Student's 2-Tailed t-test). (**e**) *il13/tbp* ratios (Mean ± SE) in lungs of mice infected with SeV ($1x10^5$ pfu) at ZT0, ZT6, ZT12, and ZT18, and sacrificed on 49 DPI (n=8-12 per time point). For the purposes of controlling for sample collection time, half of the lungs for each group were collected at ZT0 and half at ZT12. Statistical significance via 1-way ANOVA is shown. Depicted to the right is lung *il13* expression in sham (PBS) treated *bmal1*$^{-/-}$ and *wt* male mice (red and black bars, respectively, n=6 per group), SeV infected *wt* mice averaged across all infection and collection times (n=49), and well as SeV infected *bmal1*$^{-/-}$ mice ($5x10^4$ pfu, n=3). ^{a}p<0.05 SeV-infected vs. PBS control, ^{b}p<0.05 SeV-infected *wt* vs *bmal1*$^{-/-}$ mice (Student's 2-Tailed t-test).

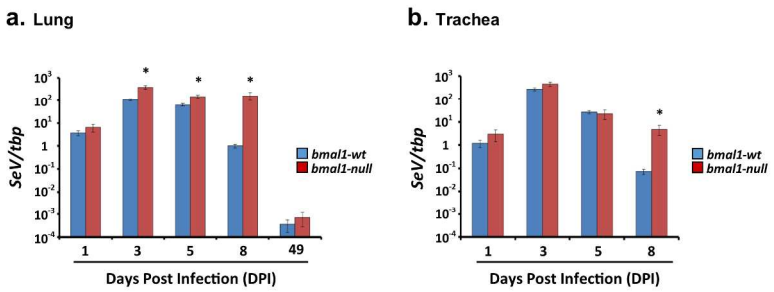
Supplementary Figure 8. Quantification of airway collagen in trichrome-stained sections. (**a**) Representative micrographs (left) of trichrome-stained lung sections at 49 days post infection with SeV ($5x10^4$ pfu) and corresponding marked-up images with collagen staining highlighted in blue (right). (**b)** Quantification of collagen staining. Each bar represents the mean staining index (collagen positive pixels/total pixels in the section) ± SE. Blue bars: *bmal1-wt* (n=4-5). Red bars:

bmal1$^{-/-}$ (n=3-4). [a]p<0.05 SeV-infected *wt* vs sham-treated (PBS) *wt*, [b]p<0.05 sham-treated *wt* vs *bmal1-null* (Student's 2-Tailed t-test).

Supplementary Figure 9. Log_{10} normalized *bmal1/nr1d1* expression ratios from SARP participants (Mean ± SE), graphed as a function of collection time. Blue circles: healthy volunteers (n=11). Green triangles: mild/moderate asthma (n=9). Red squares (severe asthma, n=9). A regression line is depicted for the healthy control samples (blue dashed line). Extrapolating from this line, the time difference that would be needed to reproduce the *bmal1*/*nr1d1* expression ratios seen in asthmatic subjects using healthy controls is 3.56 ± 0.36 hours for mild/moderate asthmatics, and 3.70 ± 0.57 hours for severe asthmatics.

Supplementary Figure 10. Representative gates used for flow cytometry to quantify granulocytes (**a**), dendritic cells (**b**), alveolar macrophages (**c**), and cytotoxic T-cells (**d**). Each panel represents the results from 10,000 events. Arrows indicate the quadrants of interest.

Supplementary Figure 1



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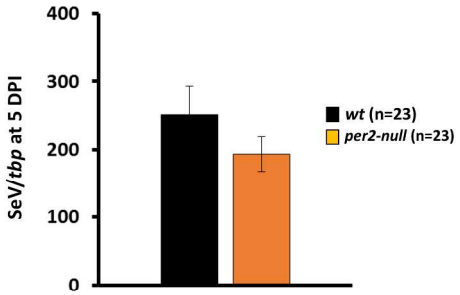
Supplementary Figure 2



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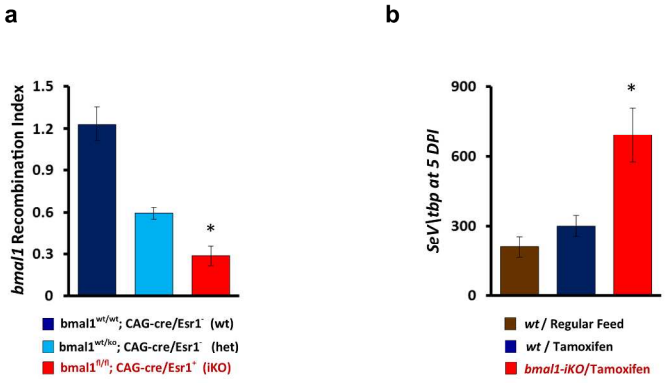
Supplementary Figure 3



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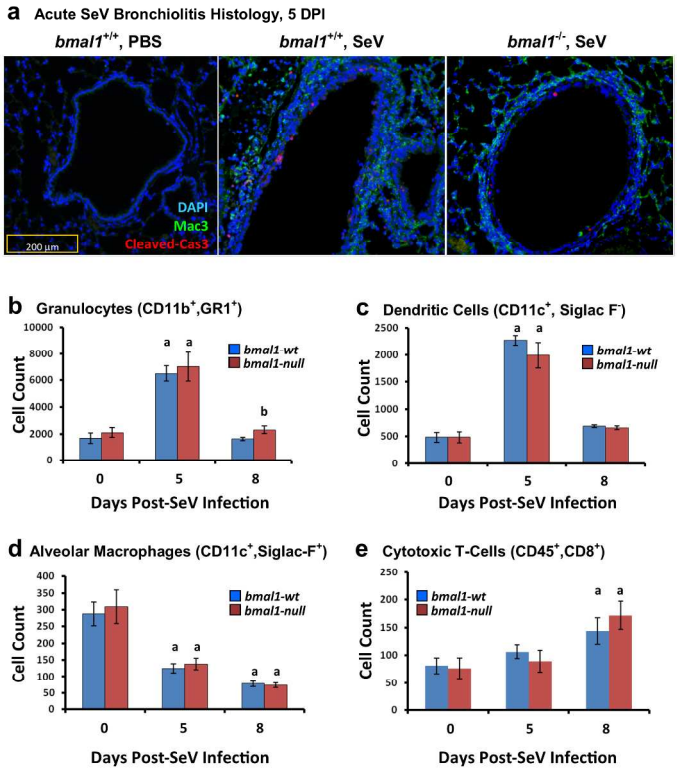
Supplementary Figure 4



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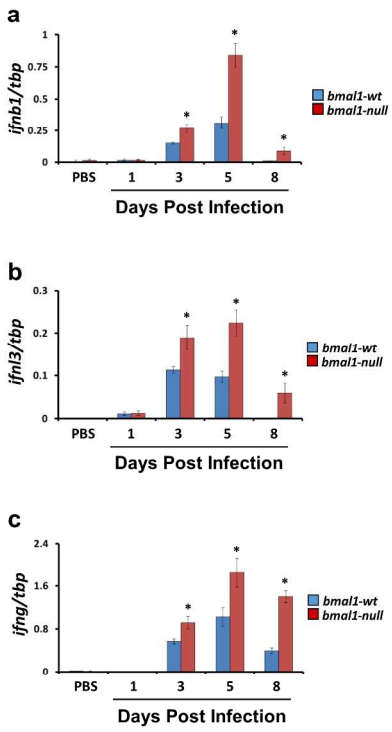
Supplementary Figure 5



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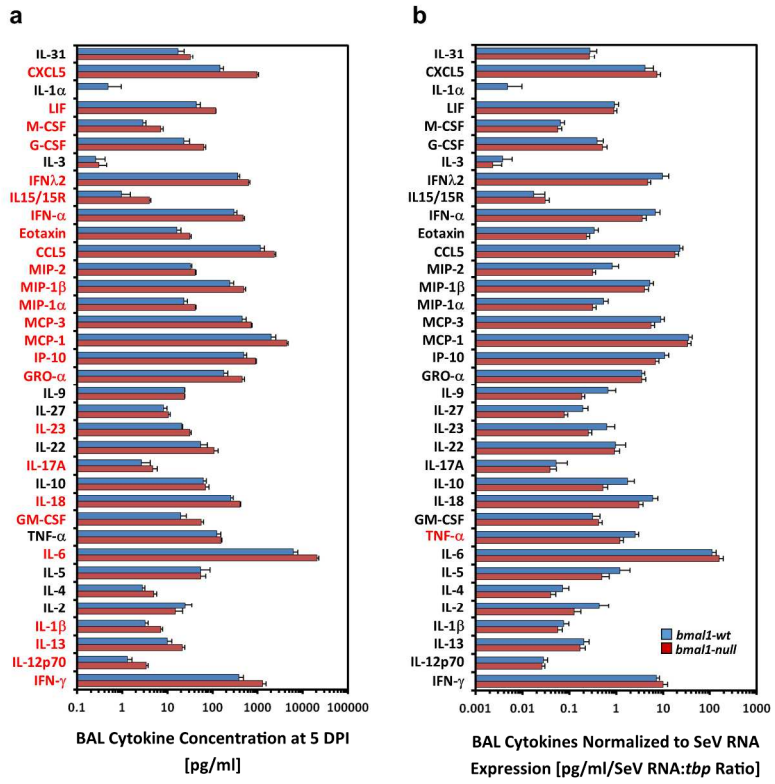
Supplementary Figure 6



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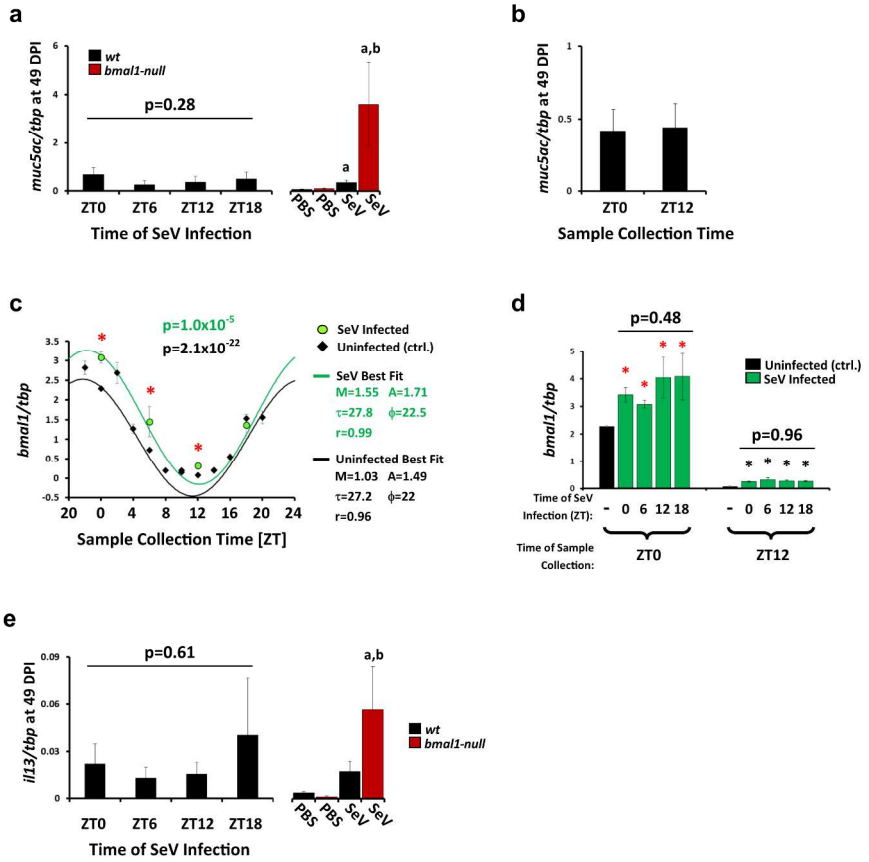
Supplementary Figure 7



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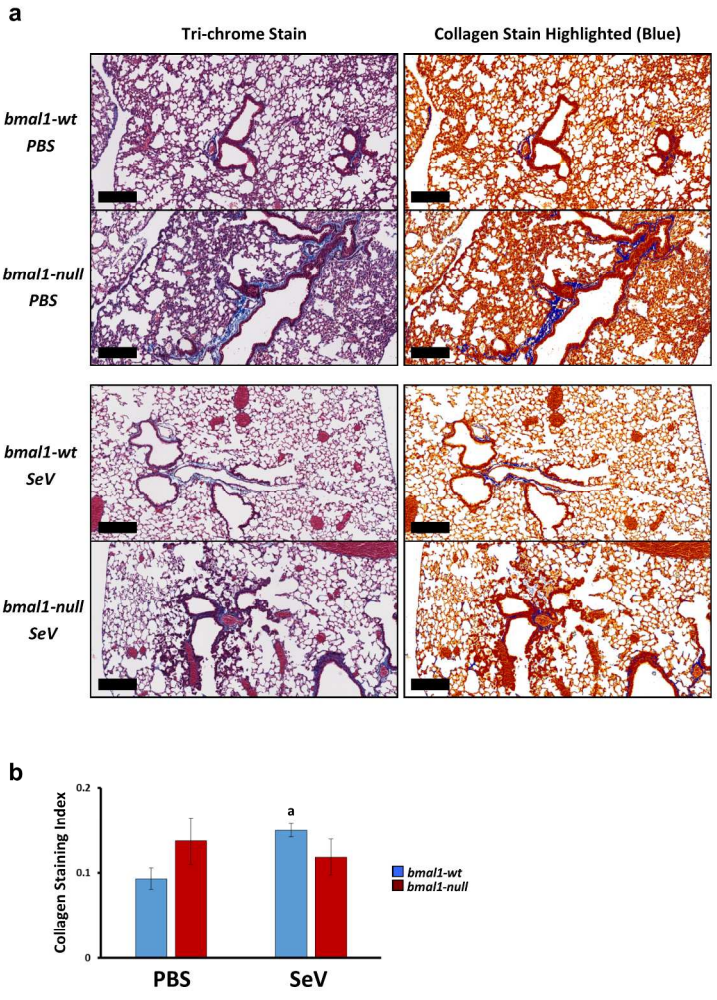
Supplementary Figure 8



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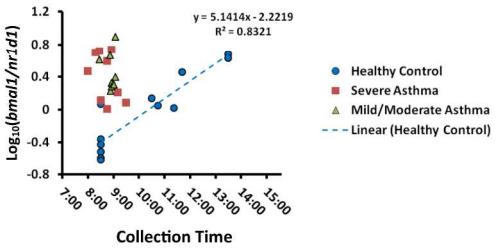
Supplemental Figure 9



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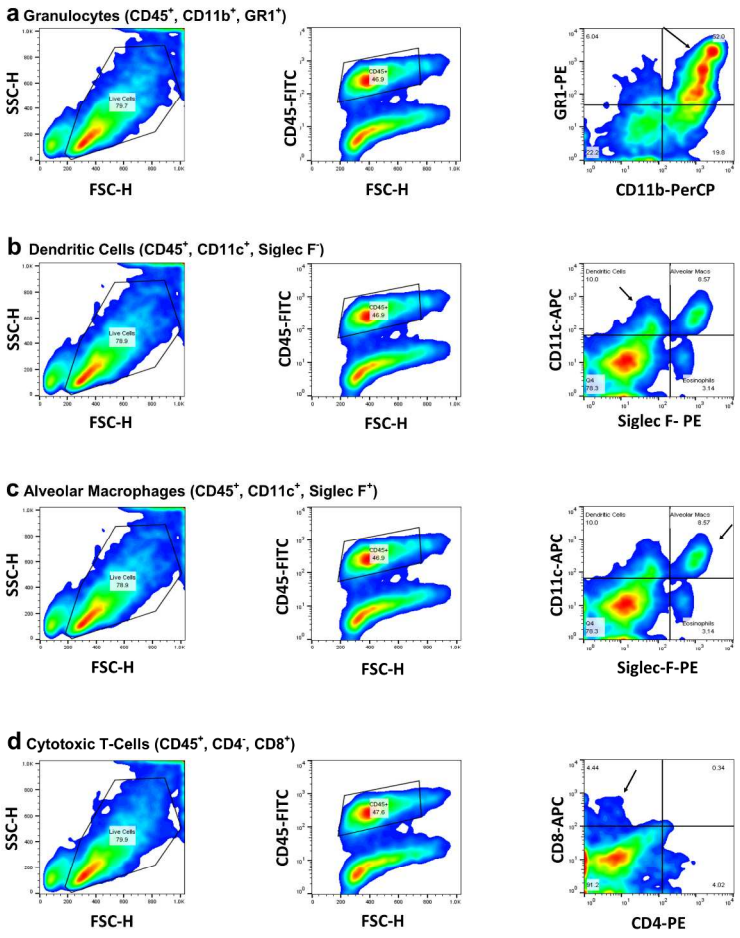
Supplementary Figure 10



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Supplementary Table 1. BAL cytokine measurements from SeV infected bmal1$^{-/-}$ and bmal1$^{+/+}$ mice. Values represent mean concentrations in pg/ml and SE are depicted in parentheses. Values where cytokine levels are significantly changed from baseline controls ($p<0.05$, 2-tailed t-test) are bolded. Significant differences ($p<0.05$, 2-tailed t-test) between bmal1$^{-/-}$ and bmal1$^{+/+}$ mice are highlighted in yellow.

	bmal1$^{+/+}$					***bmal1$^{-/-}$***			
Day Post SeV Challenge	**PBS Ctrl**	**1**	**3**	**5**	**8**	**1**	**3**	**5**	**8**
IFN-gamma	3.84 (0.69)	2.4 (0.23)	**93.75 (25.98)**	**381.8 (98.98)**	236.93 (91.21)	2.83 (0.16)	**183.54 (33.47)**	**1297.71 (238.02)**	**1768.61 (309.65)**
IL-12p70	0.35 (0.12)	2.83 (0.83)	**4.58 (0.49)**	1.31 (0.31)	0.44 (0.19)	**0 (0)**	**4.78 (1.29)**	**3.42 (0.28)**	0.91 (0.27)
IL-13	0.3 (0.3)	0 (0)	**15.4 (1.31)**	**9.81 (2.69)**	4.4 (1.69)	0.05 (0.05)	**23.32 (3.65)**	**21.43 (2.48)**	**14.36 (0.79)**
IL-1beta	0.22 (0.22)	0.36 (0.21)	**9.24 (0.77)**	**3.23 (0.53)**	**1.96 (0.39)**	0.38 (0.22)	**6.33 (0.52)**	**7.18 (0.56)**	**4.32 (0.63)**
IL-2	0 (0)	9.36 (9.36)	0 (0)	24.59 (10.44)	0 (0)	0 (0)	0 (0)	14.88 (6.9)	0 (0)
IL-4	2.11 (0.51)	1.38 (0.24)	3.19 (0.43)	2.83 (0.35)	1.85 (0.11)	1.85 (0.28)	**3.86 (0.35)**	**4.96 (0.77)**	2.55 (0.13)
IL-5	1.94 (0.66)	3.98 (0.75)	**98.14 (11.92)**	54.34 (32.86)	**8.36 (1.41)**	7 (3.4)	282.48 (92.42)	54.39 (15.81)	**19.37 (1.86)**
IL-6	35.53 (25.67)	116.67 (52.08)	**11564.6 (254.45)**	**6121.93 (1641.17)**	**1295.53 (308.61)**	189.23 (59.23)	**11614.03 (1062.73)**	**21007.11 (1585.85)**	**5913.57 (560.27)**
TNF-alpha	3.52 (0.91)	11.18 (3.73)	**260.16 (27.77)**	**125.49 (28.57)**	**67.3 (10.2)**	**14.18 (3.39)**	**215.11 (13.45)**	**155.09 (5.59)**	**135.77 (18.49)**
GM-CSF	1.7 (1.7)	1.43 (1.43)	**56.57 (5.03)**	19.81 (6.62)	6.7 (4.05)	5.01 (1.73)	**42.1 (2.16)**	**56.58 (6.24)**	**30.59 (0.97)**
IL-18	115.23 (33.38)	125.47 (12.94)	**325.83 (14.39)**	**252.65 (33.29)**	180.47 (13.96)	101.1 (6.24)	**301.85 (33.93)**	**404.09 (23.78)**	**291.75 (10.55)**

IL-10	428.67 (84.13)	**91.35 (25.41)**	**38.98 (21.75)**	**63.14 (10.28)**	**39.97 (9.46)**	**151.59 (22.83)**	**85.7 (38.99)**	**70.55 (13.3)**	228.24 (60.85)
IL-17A	0 (0)	0 (0)	**2.2 (0.23)**	2.64 (1.52)	0.25 (0.23)	0 (0)	**3.75 (1.01)**	**4.7 (1.26)**	**2.56 (0.4)**
IL-22	0 (0)	0 (0)	**56.75 (7.44)**	54 (23.95)	8.56 (7.73)	0 (0)	31 (10.67)	**108.74 (25.63)**	**44.23 (6.12)**
IL-23	71.12 (38.32)	9.93 (6.03)	33.61 (2.28)	21 (0.52)	9.39 (4.13)	38.02 (2.94)	60.6 (13.7)	31.86 (1.93)	53.39 (9.41)
IL-27	2.03 (0.45)	37.74 (35.05)	**9.5 (1.71)**	**8.09 (1.72)**	**6.56 (0.22)**	13.91 (6.27)	**7.23 (0.48)**	**10.36 (1.06)**	**16.21 (2.35)**
IL-9	24.07 (0.93)	23.26 (0.18)	25.48 (0.5)	23.66 (0.83)	**21.92 (0.18)**	23.89 (0.33)	**37.96 (3.37)**	23.77 (0.24)	23.29 (0.29)
GRO-alpha	14.63 (0.47)	17.36 (2.6)	**362.79 (35.59)**	**177.07 (40.78)**	**145.18 (31.35)**	**30.93 (5.17)**	**471.33 (46.43)**	**452.82 (58.56)**	**249.64 (51.1)**
IP-10	6.92 (0.54)	40.71 (13.55)	**720.91 (28.75)**	**489.9 (89.1)**	**154.8 (34.85)**	51.08 (15.62)	**860.47 (53.53)**	**901.91 (32.47)**	**666.15 (108.41)**
MCP-1	5.05 (5.05)	28.32 (17.77)	**2544.43 (223.47)**	**1998 (556)**	600.63 (247.53)	5.46 (3.16)	**2712.6 (273.34)**	**4420.68 (367.98)**	**4217.38 (988.32)**
MCP-3	5.65 (0.35)	3.74 (1.19)	**521.76 (49.14)**	**449.42 (102.47)**	**362.92 (76.57)**	8.63 (1.71)	**534.37 (28.72)**	**725.99 (34.03)**	**787.75 (61.01)**
MIP-1alpha	0.13 (0.13)	1.75 (1.63)	**30.38 (3.67)**	**23.55 (3.93)**	**18.38 (4.4)**	1.68 (0.57)	**27.18 (2.21)**	**41.09 (1.85)**	**120.89 (10.35)**
MIP-1beta	7.93 (2.14)	14.22 (3.92)	**362.23 (28.98)**	**243.75 (50.16)**	133.96 (44.92)	20.88 (4.15)	**329.83 (59.1)**	**497.44 (45.3)**	**638.82 (53.62)**
MIP-2	29.46 (6.07)	19.71 (1.84)	**45.92 (1.14)**	31.93 (2.75)	18.34 (3.12)	25 (1.56)	**52.1 (2.05)**	**41.51 (1.45)**	43.09 (4.01)
RANTES	0 (0)	4.65 (3.26)	**1499.79 (99.74)**	**1166.01 (267.78)**	**145.65 (21.57)**	1.69 (1.69)	**1188.85 (94.01)**	**2385.05 (124.87)**	**1149.7 (171.74)**
Eotaxin	18.62 (2.5)	**4.95 (0.88)**	**40.29 (6.44)**	16.18 (3.8)	**8.92 (1.7)**	**11.8 (0.8)**	**111.7 (9.72)**	**31.47 (2.6)**	83.78 (27.6)

IFN-alpha	0 (0)	5.14 (4.05)	**341.43 (25.95)**	**297.78 (49.93)**	**19.12 (6.22)**	5.03 (3.13)	**283.73 (32.71)**	**479.57 (29.72)**	**63.72 (7.42)**
IL-15/IL-15R	0 (0)	0 (0)	**4.84 (0.18)**	0.95 (0.58)	0 (0)	0.09 (0.09)	**3.14 (0.27)**	**4 (0.33)**	2.05 (0.71)
IL-28	177.77 (41.43)	75.04 (25.11)	**592.34 (49.68)**	**365.87 (35.95)**	125.88 (10.59)	145.66 (10.07)	**618.89 (110.1)**	**631.02 (40.56)**	307.87 (42.68)
IL-3	0.41 (0.06)	0.3 (0.3)	0.27 (0.18)	0.25 (0.16)	**0 (0)**	0.76 (0.17)	0.4 (0.11)	0.3 (0.15)	0.17 (0.08)
G-CSF	0.45 (0.33)	1.4 (0.87)	**49.64 (1.4)**	**23.48 (7.52)**	**8.79 (2.09)**	7.34 (3.98)	**129 (10.91)**	**63.83 (7.06)**	**148.59 (43.26)**
M-CSF	0.13 (0.02)	0.22 (0.06)	**19.56 (1.8)**	**2.88 (0.5)**	0.6 (0.32)	0.19 (0.04)	**9.71 (2.82)**	**7.1 (0.97)**	**10.07 (1.54)**
LIF	0 (0)	0 (0)	**65.49 (6.46)**	**43.33 (9.98)**	9.15 (3.44)	0 (0)	**60.93 (17.9)**	**117.03 (3.76)**	**124.21 (14.31)**
IL-1alpha	0 (0)	0 (0)	0.28 (0.28)	0.48 (0.48)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
ENA-78	137.27 (34.74)	48.23 (30.4)	**573.88 (68.53)**	148.36 (27.01)	**22.7 (18.65)**	**238.74 (21.42)**	**1070.04 (95.26)**	**978.89 (72.12)**	**281.21 (25.65)**
IL-31	3.9 (2.54)	4.82 (2.78)	**27.31 (0.87)**	17.11 (6.18)	1.08 (1.08)	8.19 (3.09)	**23.7 (2.36)**	**32.43 (4.11)**	**29.57 (3.53)**
Sample n	3	4	4	4	4	4	4	6	5

Supplementary Table 2: demographics of SARP adult participants and healthy adult control subjects.

Cohort	Gender	Ethnicity	Age At Sample Collection [Yrs.]	Frequency of Nocturnal Symptoms	Steroid Containing Medications (Name, Dose, and Frequency)	Time of Day Sample Was Collected
Healthy Control	Male	African-American	20	-	-	8:30
Healthy Control	Male	African-American	20	-	-	8:30
Healthy Control	Male	African-American	28	-	-	8:30
Healthy Control	Male	Caucasian	23	-	-	8:30
Healthy Control	Male	Caucasian	20	-	-	8:30
Healthy Control	Male	African-American	44	-	-	8:30
SARP-mild asthma	Female	Caucasian	56	none	Albuterol Only	0853am
SARP-mild asthma	Female	Caucasian	26	none	Albuterol Only	0857am
SARP-mild asthma	Male	African-American	47	1-2 x a month	QVAR 80 mcg 2 puffs BID	0827am
SARP-mild asthma	Female	African-American	46	none	Albuterol Only	0855am
SARP-mild asthma	Male	African-American	44	1-2 x a month	Albuterol Only	0856am
SARP-moderate asthma	Female	African-American	48	none	Pulmicort 180 mcg 1 puff BID	0905am
SARP-moderate asthma	Female	Caucasian	65	1-2 x a month	Advair 250/50 mcg 1 puff BID	0905am
SARP-moderate asthma	Female	Caucasian	53	none	Advair 100/50 mcg 1 puff BID	0852am
SARP-moderate	Female	African-	35	1-2 x a month	Fluticasone	0901am

asthma		American			110 mcg 1 puff BID	
SARP-severe asthma	Female	Caucasian	29	2 to 3/Week	Dulera 200/5 mcg 2 puffs BID	8:45
SARP-severe asthma	Female	African-American	38	2 to 3/Week	Symbicort 160/4.5 mcg 2 puffs BID	8:00
SARP-severe asthma	Male	African-American	59	2 to 3/Week	Symbicort 160/4.5 mcg 2 puffs BID	8:30
SARP-severe asthma	Female	Caucasian	60	4 or More/Week	Dulera 200/5 mcg 2 puffs BID	8:55
SARP-severe asthma	Female	African-American	58	4 or More/Week	Advair 230/21 mcg 2 puffs BID, Alvesco 160 mcg 2 puffs BID, Pulmicort 1 puff BID	8:27
SARP-severe asthma	Male	African-American	32	4 or More/Week	Advair 500/50 mcg 1 puff BID	8:18
SARP-severe asthma	Female	African-American	32	4 or More/Week	Advair 500/50 mcg 1 puff BID	9:30
SARP-severe asthma	Female	Caucasian	35	2 to 3/Week	Advair 500/50 mcg 1 puff BID	9:10
SARP-severe asthma	Female	African-American	51	4 or More/Week	Symbicort 160/4.5 mcg 2 puffs BID	8:45

Supplementary Table 3: demographics of pediatric RBEL-II participants and healthy pediatric control subjects.

Cohort	Gender	Ethnicity	Age At Sample Collection [Yrs.]	Age at Hospitalization For Bronchiolitis [Days]	Length of Hospital Stay [Days]	Lowest Oxygen Saturation Recorded During Hospitalization [%]	Length of Time After Hospital Discharge That Sample Was Collected [Days]	Steroid Containing Medications (Name, Dose, and Frequency)	Time of Day Sample Was Collected	Recurrent Wheezing Episodes	MD Diagnosed Asthma By Age 3
RBEL-II	M	African-american	1.2	94	10	60	340	-	10:30	Yes	Yes
RBEL-II	M	Multi-Ethnic	0.7	224	6	88	26	-	10:15	Yes	No
RBEL-II	M	Multi-Ethnic	0.3	73	5	91	52	-	11:30	No	No
RBEL-II	M	Caucasian	0.2	40	6	77	29	-	12:20	Yes	Yes
RBEL-II	F	African-american	0.3	23	8	77	80	-	10:45	Yes	Yes
RBEL-II	F	African-american	1.0	211	4	84	146	-	11:30	Yes	No
RBEL-II	M	African-american	1.0	320	5	86	32	-	11:30	Yes	Yes
RBEL-II	F	African-american	0.6	101	5	85	108	-	11:20	Yes	No
RBEL-II	M	Caucasian	0.2	28	5	84	52	-	10:50	Yes	No
RBEL-II	M	Caucasian	0.2	31	5	84	40	-	10:35	Yes	No
Healthy Control	F	Caucasian	2.6	-	-	-	-	-	10:25	No	-
Healthy Control	M	Multi-Ethnic	2.6	-	-	-	-	-	11:25	No	-
Healthy Control	F	African-american	4.0	-	-	-	-	-	10:50	No	-

Healthy Control	M	Multi-Ethnic	2.7	-	-	-	-	-	11:26	No	-
Healthy Control	F	Caucasian	2.7	-	-	-	-	-	10:30	No	-

Supplementary Table 4: primers used for qPCR analysis.

Gene symbol	Manufacturer	Catalog number
muc5ac	IDT	Mm.PT.58.42279692
gapdh	IDT	Mm.PT.39a.1
adm	IDT	Mm.PT.58.11111908.g
il-13	IDT	Mm.PT.58.31366752
clock	IDT	Mm.PT.58.6936121
ifit1	IDT	Mm.PT.58.32674307
ifit2	IDT	Mm.PT.58.28800045.g
ifit3	IDT	Mm.PT.58.33537107
ifnb1	IDT	Mm.PT.58.30132453.g
ifi44l	IDT	Mm.PT.58.50506267
ifi202b	IDT	Mm.PT.58.46059509
tbp	IDT	Mm.PT.58.10867035
tbp	IDT	Mm.PT.39a22214839
il-33	IDT	Mm.PT.58.12022572
dbp	IDT	Mm.PT.58.16911772
spon2	Invitrogen	Mm00513596_m1
arntl	Invitrogen	Mm00500226_m1
actb	Invitrogen	Mm00607939_s1
arntl	IDT	Hs.PT.56a.2365270.g
dbp	IDT	Hs.PT.58.22507169
npas2	IDT	Hs.PT.58.1532958
per2	IDT	Hs.PT.58.3464649
nr1d1	IDT	Hs.PT.58.40288679
nr1d2	IDT	Hs.PT.58.28261906
rplp0	IDT	Hs.PT.58.20222060
mrpl9	IDT	Hs.PT.58.39157887
vcp	IDT	Hs.PT.58.24735060
spon2	IDT	Hs.PT.58.14889671
trem2	Invitrogen	Mm04209424_g1
arntl exon location 5-8	IDT	Mm.Pt.58.21961100
arntl exon location 8-9	IDT	Mm.Pt.58.43977824

Supplementary Table 5: antibodies used for flow cytometry.

Antibody	Clone	Vendor/Cat #
Anti-Mouse CD45 FITC	30-F11	eBioscience 11-0451-82
Anti-Mouse CD68 PE	FA-11	eBioscience 12-0681-80
Anti-Mouse CD19 APC	eBio1D3	eBioscience 17-0193-80
Anti-Mouse CD19 Per-CP Cy-5.5	eBio1D3	eBioscience 45-0193-80
Anti-Mouse CD335 (NKp46) PE	29A1.4	eBioscience 12-3351-80
Anti-Mouse CD49b (Integrin α2) APC	DX5	eBioscience 17-5971-81
Anti-Mouse CD3e FITC	145-2C11	eBioscience 11-0031-82
Anti-Mouse NK1.1 PE	PK136	eBioscience 12-5941-81
Anti-Mouse CD324 (E-Cadherin) eFluor 660	DECMA-1	eBioscience 50-3249-80
Anti-Mouse CD31 PE	390	eBioscience 12-031-81
Anti-Mouse Siglec-F-PE	E50-2440	BD Biosciences 552126
Anti-Mouse CD11c APC	N418	eBioscience 17-0114-81
Anti-Mouse Ly-6G & Ly6C-PE	RB6-8C5	BD Biosciences 553128
Anti-Mouse CD11b PerCP Cy-5.5	M1/70	eBioscience 45-0112-80
Anti-Mouse CD4 PE	GK1.5	eBioscience 12-0041-81
Anti-Mouse CD8a APC	53-6.7	eBioscience 17-0081-81
Anti-Mouse CD45 PE	30-F11	eBioscience 12-0451-81
Anti-Mouse CD45 PerCP Cy5.5	30-F11	eBioscience 45-0451-80
Anti-Mouse CD45 APC	30-F11	eBioscience 17-0451-82
Anti-F4/80	SP115	Novus NBP2-12506