

**Supplementary Table 1** Respiratory and metabolic values from individuals and means, standard deviations, and standard errors are shown for parameters measured in room air with (Santin and Hartzler, 2016) and without (present study) sutures used to attach the facemask. Use of sutures to attach facemask does not influence respiratory and metabolic parameters.  $p>0.05$  for all ( $p$  values shown at bottom of table).  $F_{abs}$ = absolute breathing frequency,  $V_t$ = tidal volume,  $\dot{V}_e$ = minute ventilation,  $F_{ins}$ = instantaneous frequency,  $\dot{V}o_2$ =rate of  $O_2$  consumption,  $\dot{V}co_2$ = rate of  $CO_2$  production,  $\dot{V}_e/\dot{V}o_2$ =air convection requirement for  $O_2$ , RER= respiratory exchange ratio.

From Santin and Hartzler (2016) (Sutures)											
	$F_{abs}$ (breaths/min)	$V_t$ (ml/kg) STPD	$\dot{V}_e$ (ml/min *kg) STPD	episodes/min	Br/ Episode	$F_{ins}$ (breath hs/min)	Duration of Apnea (s)	$\dot{V}o_2$ (ml $O_2$ /min*kg) STPD	$\dot{V}_e/\dot{V}o_2$ (ml air/ml $O_2$ )	$\dot{V}co_2$ /kg (ml $CO_2$ / min*kg) STPD	RER ( $\dot{V}co_2/\dot{V}o_2$ )
Animal 1	6.30	5.33	33.56	5.67	1.11	65.59	12.67	1.00	33.65	0.79	0.80
Animal 2	1.80	3.71	6.67	1.66	1.08	44.29	38.69	0.82	8.14	0.62	0.75
Animal 3	4.40	4.63	20.36	2.40	1.80	50.62	24.18	0.66	30.64	0.64	0.97
Animal 4	5.00	2.77	13.86	2.80	1.79	37.43	28.19	0.79	17.64	0.61	0.78
Animal 5	7.00	5.25	36.78	4.13	1.69	38.72	12.55	0.82	44.99	0.71	0.87
Animal 6	4.87	2.32	11.29	2.53	1.92	44.81	23.54	0.83	13.57	0.86	1.03
Average	<b>4.89</b>	<b>4.00</b>	<b>20.42</b>	<b>3.20</b>	<b>1.57</b>	<b>46.91</b>	<b>23.30</b>	<b>0.82</b>	<b>24.77</b>	<b>0.71</b>	<b>0.87</b>
Standard Deviation	1.65	1.16	11.22	1.33	0.34	9.41	9.04	0.10	12.75	0.09	0.10
SEM	0.67	0.48	4.58	0.54	0.14	3.84	3.69	0.04	5.20	0.04	0.04
Present Study (no sutures)											
Animal 1	25.27	4.79	121.07	5.63	4.49	59.05	7.74	1.08	112.27	1.05	0.97
Animal 2	5.47	3.61	19.75	3.23	1.69	44.92	16.90	0.59	33.39	0.57	0.97
Animal 3	5.19	3.23	16.76	3.92	1.32	43.53	14.70	0.84	18.27	0.74	0.87
Animal 4	1.73	2.86	4.96	1.43	1.21	45.72	43.12	0.42	11.86	0.41	0.97
Animal 5	10.23	2.17	22.17	2.37	4.32	57.87	18.91	0.81	27.43	0.70	0.87
Animal 6	1.27	5.54	7.02	1.23	1.03	NA	47.81	0.79	8.88	0.56	0.71
Animal 7	14.30	2.12	30.30	5.07	2.82	47.00	9.43	1.26	23.96	0.91	0.72
Animal 8	6.47	2.35	15.23	5.40	1.20	57.60	10.88	0.89	17.20	0.79	0.89
Average	<b>8.74</b>	<b>3.33</b>	<b>29.66</b>	<b>3.54</b>	<b>2.26</b>	<b>50.81</b>	<b>21.19</b>	<b>0.84</b>	<b>31.66</b>	<b>0.72</b>	<b>0.87</b>
Standard Deviation	7.41	1.18	35.37	1.64	1.35	6.46	14.50	0.25	31.38	0.19	0.10
SEM	2.62	0.42	12.50	0.58	0.48	2.28	5.12	0.09	11.09	0.07	0.04
p-value from two-tailed unpaired t test	0.221169347	0.352314347	0.534080514	0.7019702	0.225814	0.452969	0.7613713	0.882048683	0.612381393	0.90986873	0.93078020