<u>Supplemental Table S1.</u> Time period over which cohorts of male (M) or female (F) RI families were studied (all mice were obtained from Jackson Laboratories). TT4 levels in the  $1^{st}$  and  $2^{nd}$  female cohorts correlated significantly ( $r_s$ , Spearman rank correlation coefficient; p value, and the number of sera, n are included).

RI Set	M/F	Study	Age (weeks)	Dates	r <sub>s</sub> TT4	р	n	Reference
СХВ	М	-	7-9	2/2012- 7/2012			13	Present study
	F	2 <sup>nd</sup>	6-8	10/2010 - 2/2011	0.76	0.002	13	(1)
	F	1 <sup>st</sup>	5-8	1/2005- 9/2005			13	(2)
ВХН	М	-	7-9	2/2012-7/2012			12	Present study
	F	2 <sup>nd</sup>	6-8	8/2010- 4/2011	0.60	0.036	12	(1)
	F	1 <sup>st</sup>	5-8	6/2006- 12/2006			12	(3)
AXBXA	М	-	7-9	2/2012- 7/2012			25	Present study
	F	2 <sup>nd</sup>	6-8	2/2011- 6/2011	0.62	0.001	25	(1)
	F	1 <sup>st</sup>	5-8	8 /2008 to 2/2009			25	(4)

## **References**

1. Hamidi S, Aliesky H, RW WW, Rapoport B, McLachlan SM 2012 Genetic linkages for thyroxine released in response to TSH stimulation in three sets of recombinant inbred mice provide evidence for shared and novel genes controlling thyroid function. Thyroid 23:360-370

2. Aliesky HA, Pichurin PN, Chen CR, Williams RW, Rapoport B, McLachlan SM 2006 Probing the genetic basis for thyrotropin receptor antibodies and hyperthyroidism in immunized CXB recombinant inbred mice. Endocrinology 147:2789-2800

3. McLachlan SM, Aliesky HA, Pichurin PN, Chen C-R, Williams RW, Rapoport B 2008 Shared and unique susceptibility genes in a mouse model of Graves' disease determined in BXH and CXB recombinant inbred mice . Endocrinology 149:2001-2009

4. McLachlan SM, Aliesky H, Chen C-R, Williams RW, Rapoport B 2011 Exceptional hyperthyroidism and a role for both major histocompatibility class I and class II genes in a murine model of Graves' disease. PLoS One 6:e21378