

# **IL-4 mediated resistance of BALB/c mice to visceral leishmaniasis is independent of IL-4R $\alpha$ signalling via T cells'.**

## **SUPPLEMENTARY INFORMATION**

Page

- 7    **Table S1:** *L. donovani* parasite burdens in the spleen, liver and bone marrow of CD4<sup>+</sup> T cell-specific IL-4R $\alpha$ -deficient (*Lck*<sup>cre</sup>IL-4R $\alpha$ <sup>-/lox</sup>) mice, wild-type littermate control (IL-4R $\alpha$ <sup>-/lox</sup>) and global IL-4R $\alpha$ <sup>-/-</sup> BALB/c mice at days 14 or 15 post-infection.
- 7    **Table S2:** Granuloma maturation in *L. donovani* infected CD4<sup>+</sup> T cell-specific IL-4R $\alpha$ -deficient (*Lck*<sup>cre</sup>IL-4R $\alpha$ <sup>-/lox</sup>) mice, wild-type littermate control (IL-4R $\alpha$ <sup>-/lox</sup>) and global IL-4R $\alpha$ <sup>-/-</sup> BALB/c mice at day 14 and 15 post-infection.
- 8    **Figure S1:** Representative photomicrographs of the hepatic granuloma response in an *L. donovani* infected wild-type (IL-4R $\alpha$ <sup>-/lox</sup>), CD4<sup>+</sup> T cell-specific IL-4R $\alpha$ -deficient (*Lck*<sup>cre</sup>IL-4R $\alpha$ <sup>-/lox</sup>), and global IL-4R $\alpha$ <sup>-/-</sup> mice at days 15 post-infection.

**Table S1:** *L. donovani* parasite burdens in the spleen, liver and bone marrow of CD4<sup>+</sup> T cell-specific IL-4R $\alpha$ -deficient (*Lck*<sup>cre</sup>IL-4R $\alpha$ <sup>-/lox</sup>), wild-type littermate control (IL-4R $\alpha$ <sup>-/lox</sup>) and global IL-4R $\alpha$ <sup>-/-</sup> BALB/c mice at different times post-infection. Mice were infected with *L. donovani* on day 0 and parasite burdens were determined on day 14 or 15 in separate experiments.

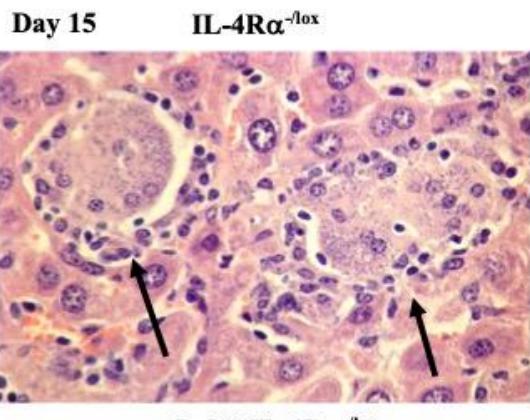
Treatment	Mean parasite burden $\pm$ SE		
	Spleen	Liver	Bone marrow
<b>Day 14</b>			
WT (IL-4R $\alpha$ <sup>-/lox</sup> )	194 $\pm$ 16	4144 $\pm$ 256	1038 $\pm$ 31
CD4 <sup>+</sup> T cell-specific IL-4R $\alpha$ -deficient ( <i>Lck</i> <sup>cre</sup> IL-4R $\alpha$ <sup>-/lox</sup> )	223 $\pm$ 45	3597 $\pm$ 560	947 $\pm$ 108
Global IL-4R $\alpha$ <sup>-/-</sup>	214 $\pm$ 31	4223 $\pm$ 337	788 $\pm$ 181
<b>Day 15</b>			
WT (IL-4R $\alpha$ <sup>-/lox</sup> )	91 $\pm$ 16	2349 $\pm$ 192	387 $\pm$ 106
CD4 <sup>+</sup> T cell-specific IL-4R $\alpha$ -deficient ( <i>Lck</i> <sup>cre</sup> IL-4R $\alpha$ <sup>-/lox</sup> )	143 $\pm$ 19	2312 $\pm$ 192	528 $\pm$ 99

**Table S2:** Granuloma maturation in *L. donovani* infected CD4<sup>+</sup> T cell-specific IL-4R $\alpha$ -deficient (*Lck*<sup>cre</sup>IL-4R $\alpha$ <sup>-/lox</sup>), wild-type littermate control (IL-4R $\alpha$ <sup>-/lox</sup>) and global IL-4R $\alpha$ <sup>-/-</sup> BALB/c mice at day 14 and 15 post-infection in separate experiments. ND – not determined.

Granuloma stage	Strain		
	WT control (IL-4R $\alpha$ <sup>-/lox</sup> )	CD4 <sup>+</sup> T cell-specific IL-4R $\alpha$ -deficient ( <i>Lck</i> <sup>cre</sup> IL-4R $\alpha$ <sup>-/lox</sup> )	Global IL-4R $\alpha$ <sup>-/-</sup>
<b>Day 14</b>			
Sterile	1.5 $\pm$ 1.1	0.4 $\pm$ 0.7	0.6 $\pm$ 1.1
Mature	6.8 $\pm$ 1.1	3.1 $\pm$ 1.7	2.7 $\pm$ 2.7
Immature	29.6 $\pm$ 7.1	22.7 $\pm$ 6.4	17.4 $\pm$ 5.6
Kupffer cells	61.9 $\pm$ 6.7	73.3 $\pm$ 7.9	67.2 $\pm$ 8.3
<b>Day 15</b>			
Sterile	2.00 $\pm$ 0.8	1.03 $\pm$ 0.9	ND
Mature	8 $\pm$ 2.5	5.83 $\pm$ 0.9	ND
Immature	28.18 $\pm$ 3.3	30.30 $\pm$ 3.6	ND
Kupffer cells	59.32 $\pm$ 9.0	62.5 $\pm$ 3.3	ND

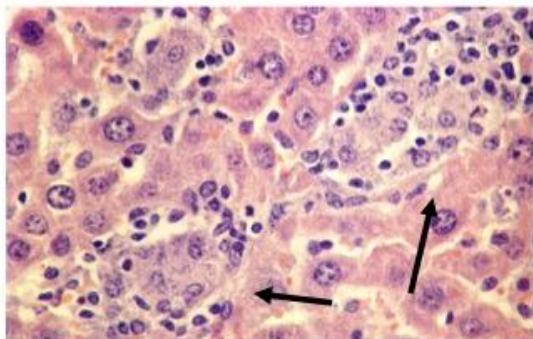
**Fig. S1:** Representative photomicrographs of the hepatic granuloma response in *L. donovani* infected wild-type ( $\text{IL-4R}\alpha^{-/\text{lox}}$ ), CD4 $^{+}$  T cell-specific IL-4R $\alpha$ -deficient ( $\text{Lck}^{\text{cre}}\text{IL-4R}\alpha^{-/\text{lox}}$ ) and global IL-4R $\alpha^{-/-}$  mice at day 15 post-infection. Immature granulomas and amastigotes within the Kupffer cells at Day 15 are denoted by (arrows).

**A**



$\text{Lck}^{\text{cre}}\text{IL-4R}\alpha^{-/\text{lox}}$

**B**



$\text{Global IL-4R}\alpha^{-/-}$

**C**

