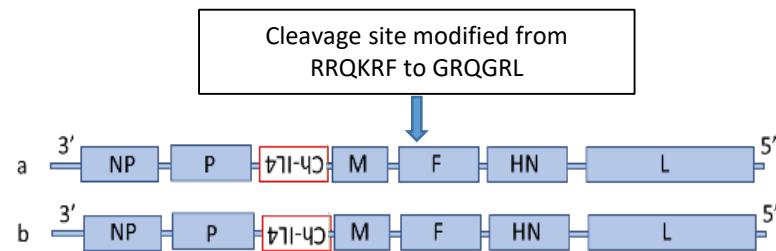
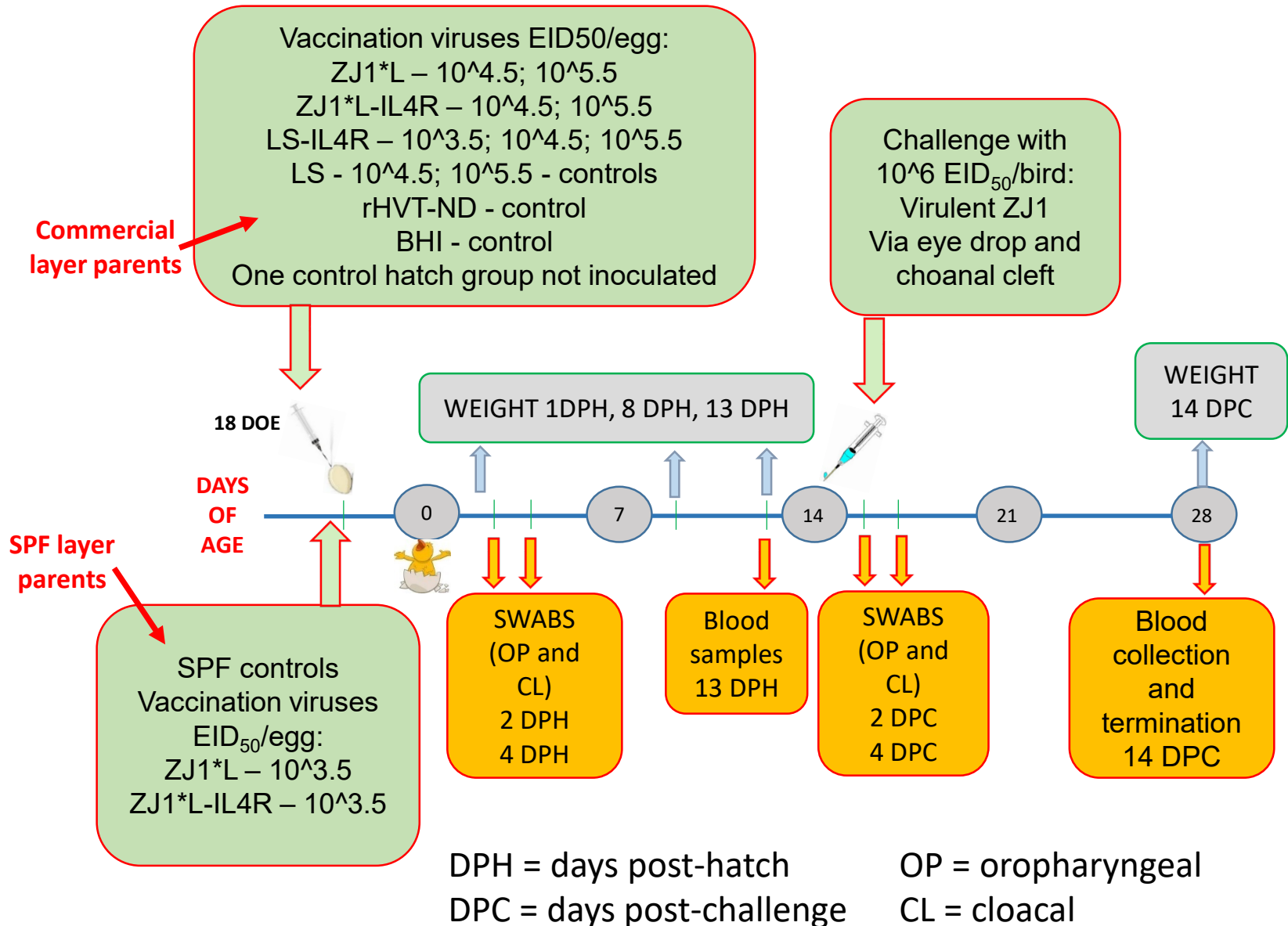


Supplemental Figure S1A. Schematic representation of the final recombinant constructs: a) ZJ1*L-IL4R and b) LS-IL4R



Supplemental Figure S1B. Schematic representation of the experiment



Supplemental Figure S1C. Table representation of the experiment with groups

Group	Vaccine/inoculum 0.1mL Oculo-nasal	Dose EID ₅₀ /0.1mL	Number of hatched eggs	Bleeding for maternal antibody levels	Weight measuring	Swab collection (OP and CL)	Blood collection	Challenge with virulent NDV 10^6 EID ₅₀ /bird	Swab collecti on (OP and CL)	Blood collection
1	None – hatch control	-	26	5 birds at hatch	1,8, 13 DPH	2 and 4 DPH	13 DPH	14 DPH	2 and 4 DPC	14 DPC
2	BHI control	-	26	5 birds at hatch						
3	rHVT-ND control	Manufacturer recommendations	21	NONE						
4	ZJ1*L	10^4.5	21							
5	ZJ1*L	10^5.5	21							
6	ZJ1*L-IL4R	10^4.5	21							
7	ZJ1*L-IL4R	10^5.5	21							
8	LS-IL4R	10^3.5	21							
9	LS-IL4R	10^4.5	21							
10	LS-IL4R	10^5.5	21							
11	ZJ1*L – SPF	10^3.5	20							
12	ZJ1*L-IL4R – SPF	10^3.5	21							
13	LS control	10^4.5	21							
14	LS control	10^5.5	19							
						DEAD	NA	NA	NA	

DPH = days post-hatch
DPC = days post-challenge
NA = not applicable

OP = oropharyngeal
CL = cloacal
DEAD = all birds died by this day