

**Table S1. Gain-of-function assays in chicken embryos**

<b>A Electroporation of wild-type Arid3b and collection of embryos at 48 hours (total electroporated embryos=37)</b>		
Alterations in AER morphology: 92% ( $n=34/37$ ) (a)*		No apparent phenotype: 8% ( $n=3/37$ )
AER with abnormal shape: 74% ( $n=25/34$ )		Partial absence of AER: 26% ( $n=9/34$ ) (e)
With branched AER: 40% ( $n=10/25$ ) (b)	AER not branched: 60% ( $n=15/25$ ) (d)	
One case with ectopic patch of Fgf8 expression away from endogenous AER (c)		
<b>B Electroporation of wild-type Arid3b and collection of embryos at 72 hours (total electroporated embryos=15)</b>		
Alterations in AER morphology: 100% ( $n=15/15$ ) (f)		No apparent phenotype: 0% ( $n=0/15$ )
AER with abnormal shape: 87% ( $n=13/15$ )		Partial absence of AER: 13% ( $n=2/15$ ) (j)
With branched AER: 77% ( $n=9/13$ ) (f,g)	AER not branched: 23% ( $n=4/13$ ) (i)	
One case with ectopic patch of Fgf8 expression away from endogenous AER (h)		
*Letters in parentheses refer to images below, examples of each case.		

