Supplemental Figure Legends:

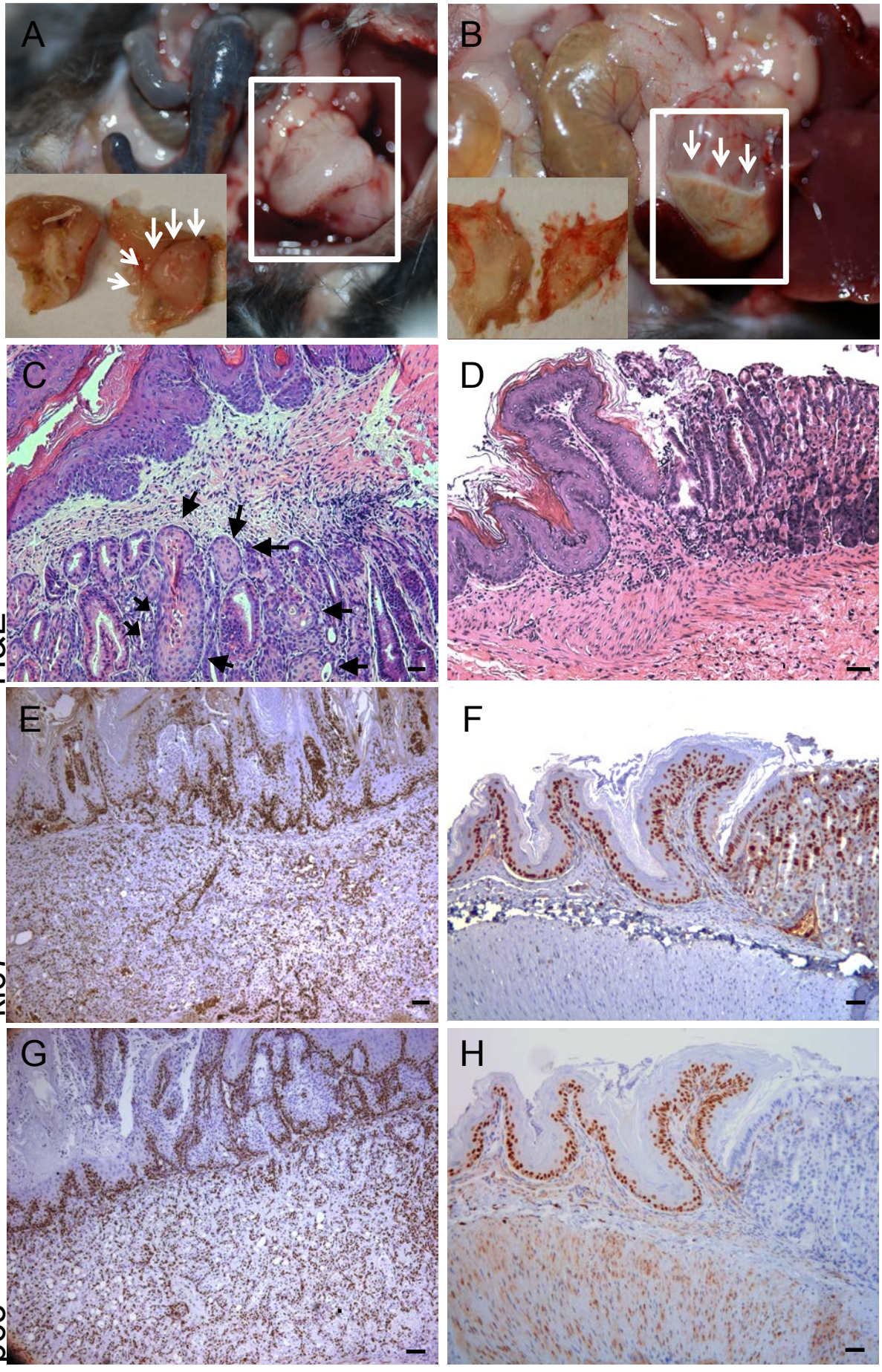
Supplemental Figure S1: Cdh1/Tgfbr2 knock-out results in forestomach SCC. Animals present with tumors of the forestomach (A, arrows) that are not present in the single knock-out controls or non-induced animals (B arrows point to normal junction). Histological analysis shows hyperplasia and areas of squamous invasion (C, arrows) that is not seen in control mice (D). Forestomach tumor tissue has increased Ki67-positivity (E) and p63-positivity (G) compared to controls (F,H). Scale bars are 50 microns.

Supplemental Figure S2: Characterization of Forestomach SCCs. Mosaic loss of E-cadherin (red) and pSmad2 (green) in the mouse forestomach (A) compared to tissues from control animals (B). Focal loss of E-cadherin is accompanied by loss of p120 (C) and β-catenin (D, green; gastric glands are positive, arrows). Tumor tissues are positive for nuclear Myc (E) and cyclin D1, Ccnd1 (G) staining as are areas of invasion underlying the normal squamous forestomach (F, H, arrows). Scale bars are 50 microns.

Supplemental Figure S3: Immune response to Cdh1/Tgfbr2 knock-out does not result in SCC. Esophageal tissues dissected show no tumors, but immune infiltration (A, B, arrows), which is not seen in controls (C). Mosaic E-cadherin (D, red) and pSmad2 (D, green) expression. In some animals E-cadherin expression was almost entirely lost (E, green retaining expression, arrows), and is associated with loss of β-catenin (F, red). Scale bars are 50 microns.

S1 mouse SCC

normal mouse forestomach



S2

A
Ecad pSmad2
B
Ecad pSmad2
C
p120
D
Bcat
E
Myc
F
Myc
G
Ccnd1
H
Ccnd1

S3