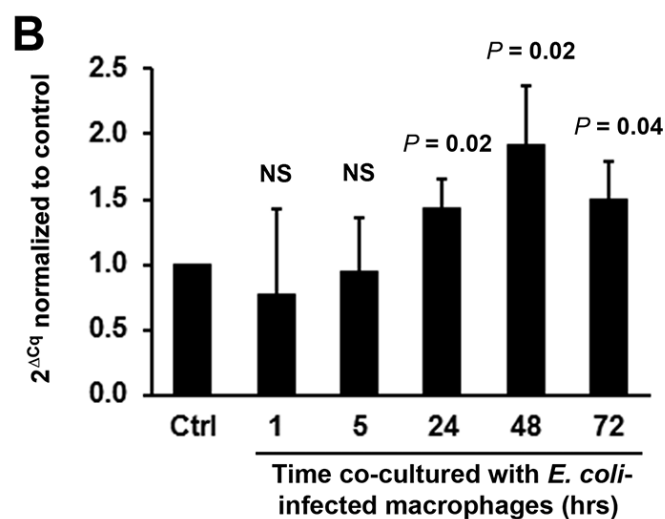
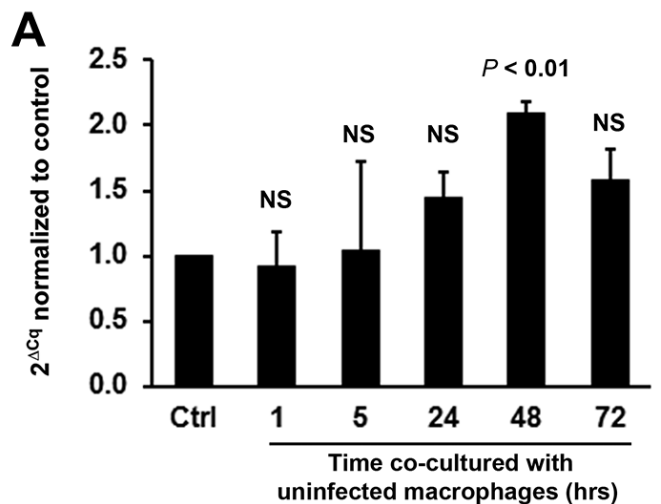
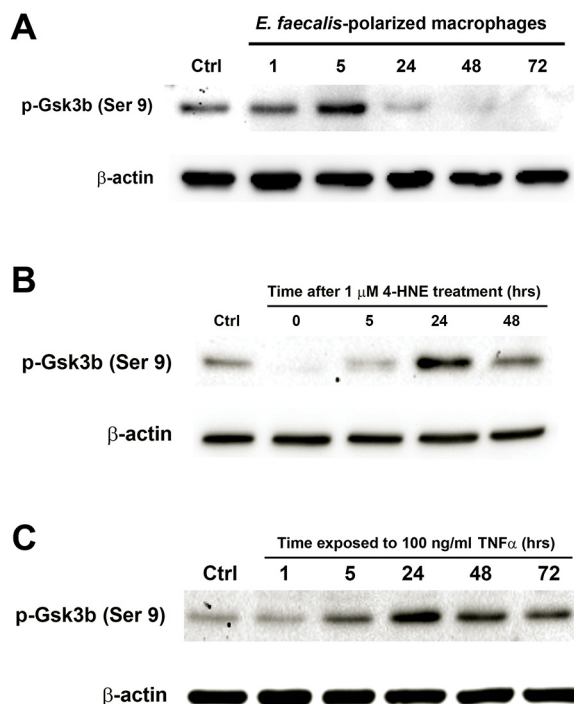


## Commensal-infected macrophages induce dedifferentiation and reprogramming of epithelial cells during colorectal carcinogenesis

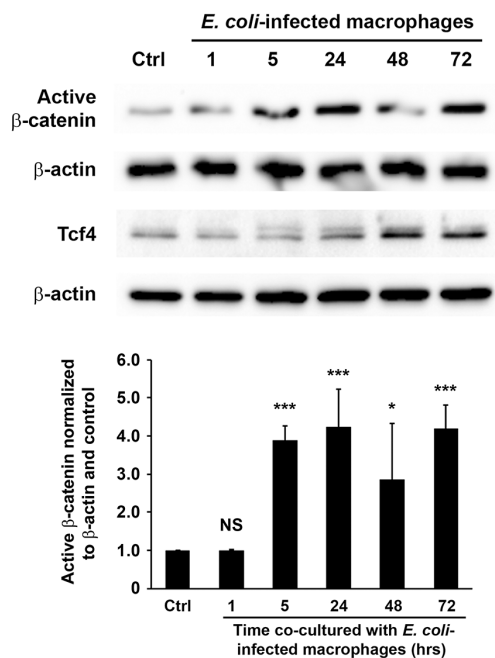
### SUPPLEMENTARY MATERIALS



**Supplementary Figure 1: *Ctnnb1* expression in YAMC cells exposed to uninfected and *E. coli*-infected macrophages.** (A), *Ctnnb1* expression in YAMC cells transiently increases after 48 hrs treatment with uninfected macrophages compared to untreated control. (B), *Ctnnb1* expression increases after 24 - 72 hrs treatment with *E. coli* DH5 $\alpha$ -infected macrophages compared to untreated control. NS, not significant. Data represent mean  $\pm$  SD for 3 independent experiments.



**Supplementary Figure 2: MIBE-induced phosphorylation of Gsk3β (Ser<sup>9</sup>).** (A), Phosphorylated Gsk3β (Ser<sup>9</sup>) is transiently increased in YAMC cells exposed to *E. faecalis*-infected macrophages for 5 hrs and decreased afterwards. (B), p-Gsk3β (Ser<sup>9</sup>) is transiently increased 24 hrs after 1 hr treatment with 4-HNE. (C), Increased p-Gsk3β is also noticed for cells treated with TNFα for 24 hrs and subsequently decreased.



**Supplementary Figure 3: Activation of β-catenin by *E. coli*-infected macrophages.** Western blots show increased active β-catenin and Tcf4 (upper) in YAMC cells exposed to *E. coli*-infected macrophages (100 multiplicity of infection) after normalization to β-actin and untreated controls (lower). Data represent mean ± SD for 3 independent experiments.

Supplementary Table 1: Primers for qRT-PCR

Genes	Primer sequence (bp)	PCR product
Human <i>ACTB</i>		148
forward	5'- ACCTTCTACAATGAGCTGCG -3'	
reverse	5'- CCTGGATAGCAACGTACATGG -3'	
Human <i>CTNNB1</i>		150
forward	5'- GTTCAGTTGCTTGTTTCGTGC -3'	
reverse	5'- GTTGTGAACATCCCGAGCTAG -3'	
Human <i>DCLK1</i>		118
forward	5'- AAAGTCTGCAGCTCGATGG -3'	
reverse	5'- CATCTCCTATTGTTCTTCCGACT -3'	
Murine <i>Actb</i>		147
forward	5'- ACCTTCTACAATGAGCTGCG -3'	
reverse	5'- CTGGATGGCTACGTACATGG -3'	
Murine <i>Ctnnb1</i>		135
forward	5'- GCTATTCCACGACTAGTTCAGC -3'	
reverse	5'- AGCTCCAGTACACCCTTCTAC -3'	
Murine <i>Delk1</i>		83
forward	5'- TGCCGACTGAACTGTATCTTG -3'	
Reverse	5'- TGTGTATTTGCTAGTGGAGGTG -3'	

Supplementary Table 2: Primary antibodies and dilution used in this study

Application and antigen	Vendor	Catalogue Number	Host	Clonality	Dilution
<i>Western blotting</i>					
Active $\beta$ -catenin	Cell Signaling Technology	4270	rabbit	Poly	1:1,000
$\beta$ -actin	Santa Cruz Biotechnology	sc-81178	Mouse	Mono	1:2,000
c-Myc	Santa Cruz Biotechnology	sc-40	mouse	Mono	1:500
CD44	Cell Signaling Technology	5640	Mouse	Mono	1:500
Dclk1	Abgent	AP7219b	Rabbit	Poly	1:1,000
Klf4	Millipore	09-821	Rabbit	Poly	1:500
Oct3/4	Santa Cruz Biotechnology	sc-9081	Rabbit	Poly	1:200
p-Gsk3 $\beta$ (Ser <sup>9</sup> )	Santa Cruz Biotechnology	sc-11757	Goat	Poly	1:200
Sox2	Abgent	AP2048D	Rabbit	Poly	1:1,000
Tcf4	Santa Cruz Biotechnology	sc-8631	Goat	Poly	1:200
Wif1	Cell Signaling Technology	2064	Rabbit	Poly	1:1,000
Wnt3 $\alpha$	R&D Systems MAB1324	MAB1324	Rat	Mono	1:400
<i>IHC &amp; IF staining</i>					
Active $\beta$ -catenin	Millipore	05-665	Mouse	Mono	1:250
c-Myc	Abgent	AP1985B	rabbit	Poly	1:25
Dclk1	Abgent	AP7219b	Rabbit	Poly	1:50
Klf4	Millipore	09-821	Rabbit	Poly	1:100
Oct3/4	Santa Cruz Biotechnology	sc-9081	Rabbit	Poly	1:100
Sox2	Cell Signaling Technology	3728	Rabbit	Mono	1:50