Supplementary Table S4. Pathway analysis for the 8 polyp classifier markers; the table shows top pathways from the EpiSwitch 3D genome mapping app, and the data is ranked by score (-log2 of hypergeometric *p*-value)

Pathway	PathwaySource	PathwaySize	Input_list	Overlap	Score	V1	V2	V3	V4	V5	V6	V7
PAX8 Targets in Thyroid Dysgenesis (Hypothesis)	Elsevier	15	24	2	12.774	SMAD3	PAX8					
TGFB Signaling activation by Blocking of Tumor Suppressors	Elsevier	74	24	2	8.16	SMAD3	KLF5					
TGF-beta signaling pathway	KEGG	95	24	2	7.459	SMAD3	THSD4					
Colorectal Neoplasms	DisGeNet	1073	24	5	7.297	ABCA4	GCLM	PAX8	KLF5	IL1RN		
Bile Acid Metabolism	Hallmark/Age	113	24	2	6.978	ABCA4	GCLM					
Colon (non-specific) lesion	DisGeNet	7	24	1	6.904	SMAD3						
Mesodermal.commitment.pathway	Wiki	149	24	2	6.219	SMAD3	KLF5					
Epithelial.to.mesenchymal.transition.in.colorectal.cancer	Wiki	163	24	2	5.975	SMAD3	CLDN23					
TNF-alpha Signaling via NF-kB	Hallmark/Age	201	24	2	5.414	NINJ1	SMAD3					
Colorectal Carcinoma	DisGeNet	2931	24	7	5.244	IL1RN	ABCA4	GCLM	PAX8	KLF5	PSD4	SMAD3
GUCY2C Signaling in Colorectal Cancer	Elsevier	27	24	1	4.974	SMAD3						
Reactive Oxygen Species Pathway	Hallmark/Age	50	24	1	4.106	GCLM						
Malignant tumor of colon	DisGeNet	2001	24	5	4.039	AAGAB	IL1RN	GCLM	KLF5	SMAD3		
TGF-beta Signaling	Hallmark/Age	55	24	1	3.973	SMAD3						
Multiple polyps	DisGeNet	62	24	1	3.806	SMAD3						
Adenomatous Polyposis Coli	DisGeNet	392	24	2	3.703	AAGAB	SMAD3					
Chromosomal.and.microsatellite.instability.in.colorectal.cancer	Wiki	74	24	1	3.561	SMAD3						
Colorectal Cancer	DisGeNet	3298	24	6	3.155	IL1RN	GCLM	ABCA4	PAX8	KLF5	SMAD3	
Metastatic Colorectal Cancer	Elsevier	122	24	1	2.882	SMAD3						
ActivatingInvasionMotility	Hallmark/Age	1835	24	4	2.868	IL1RN	NINJ1	SMAD3	PIBF1			
Colon Carcinoma	DisGeNet	2091	24	4	2.424	AAGAB	IL1RN	KLF5	SMAD3			
Colonic Neoplasms	DisGeNet	778	24	2	2.148	IL1RN	SMAD3					