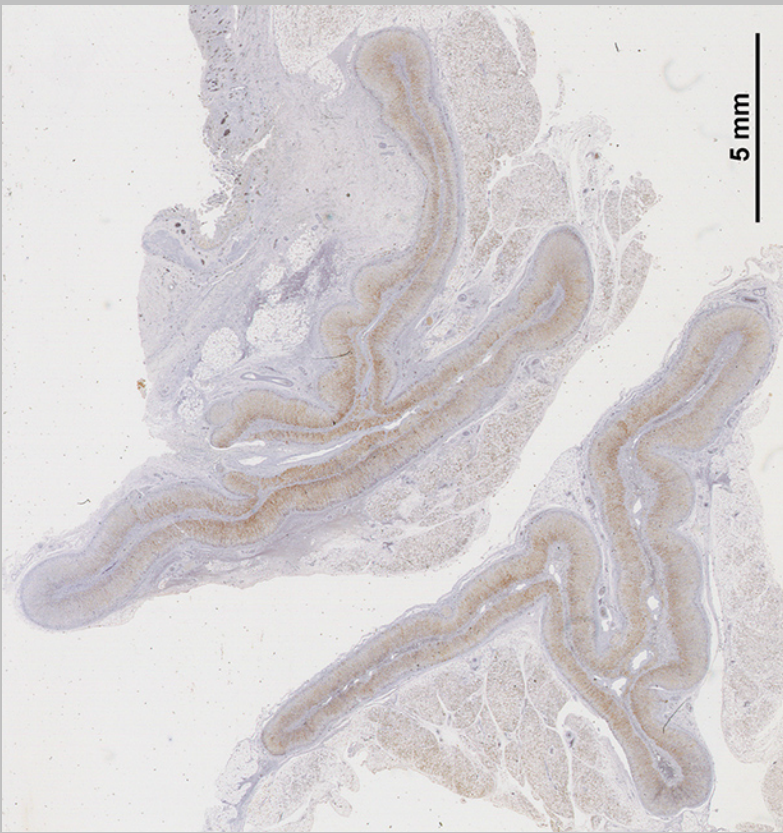
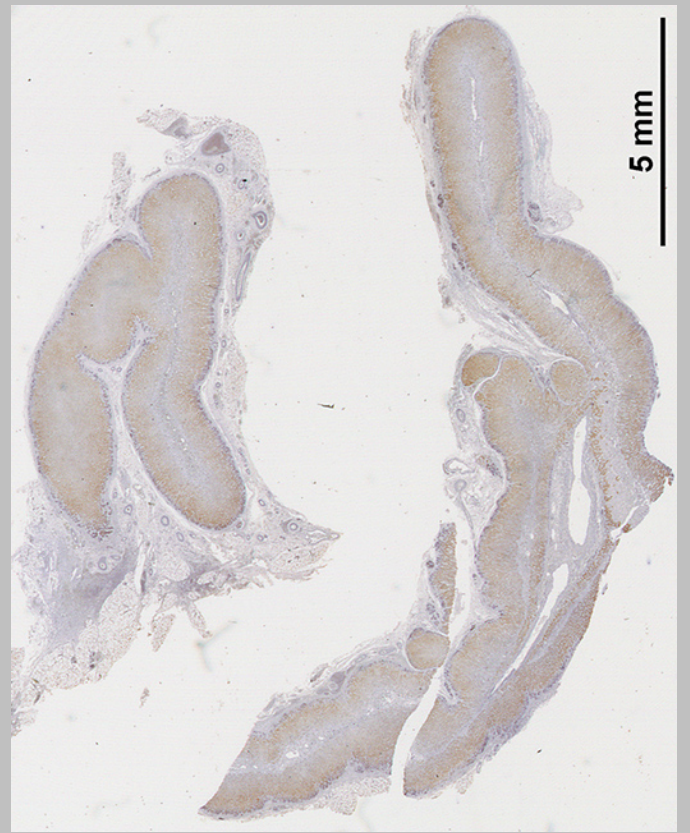


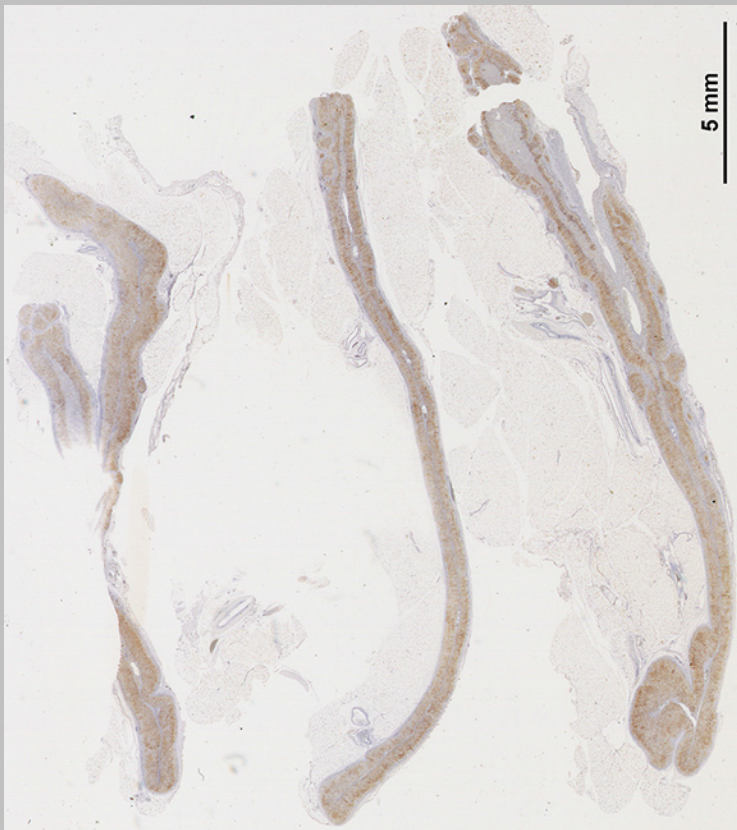
Supplementary Figure 1



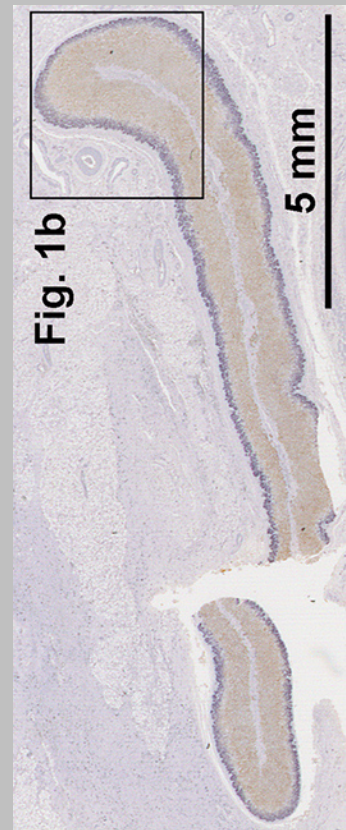
Case 1, A021



Case 2, A022

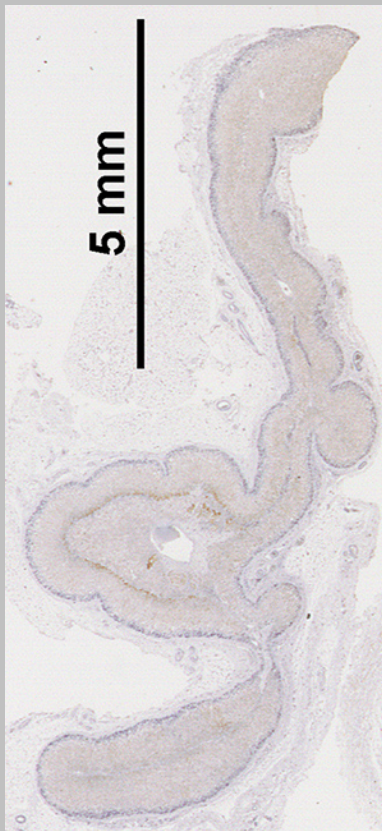


Case 3, A023

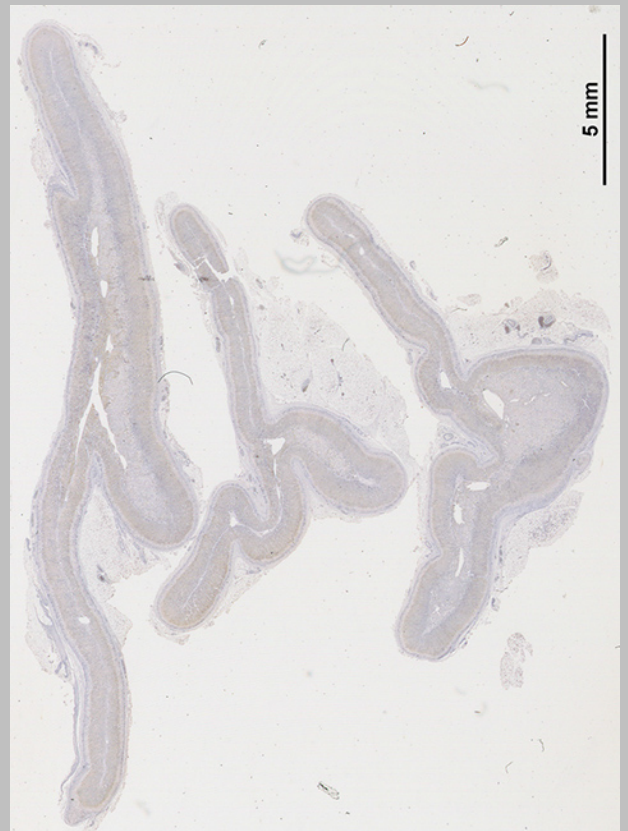


Case 4, A024

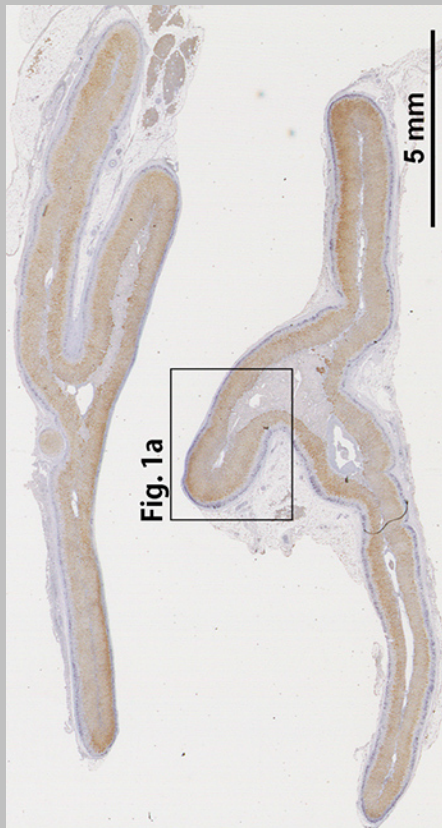
Supplementary Figure 1



Case 5, A025



Case 6, A026

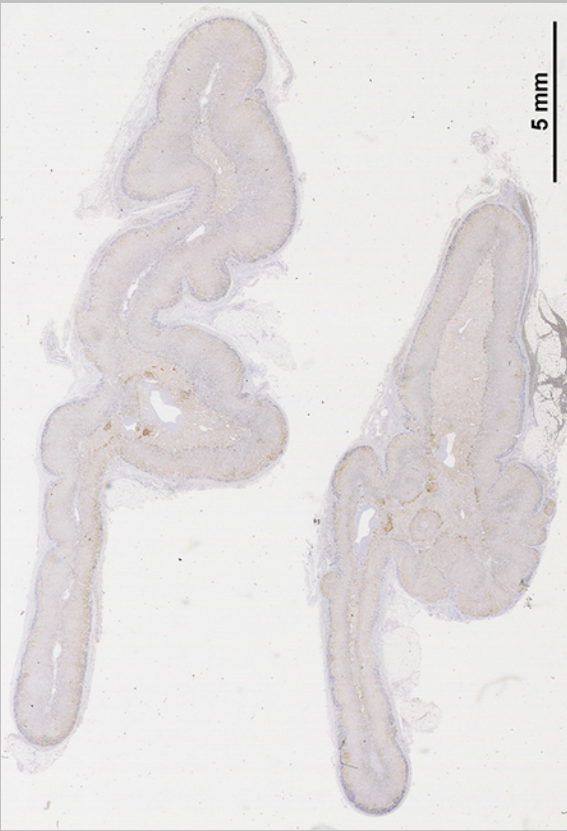


Case 7, A027

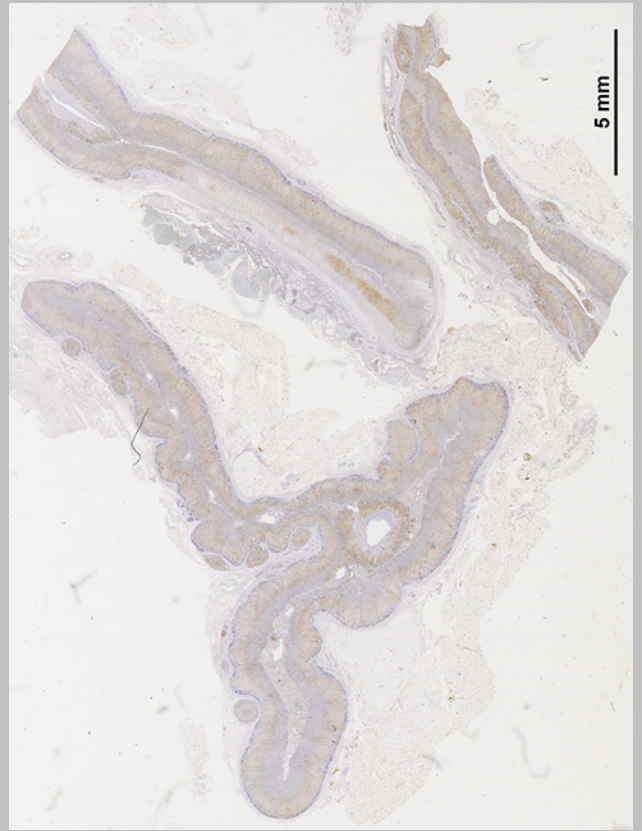


Case 8, A028

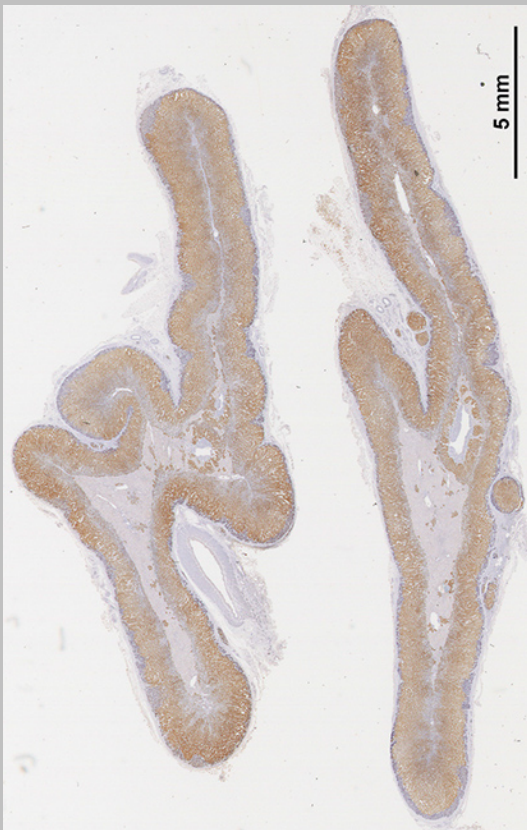
Supplementary Figure 1



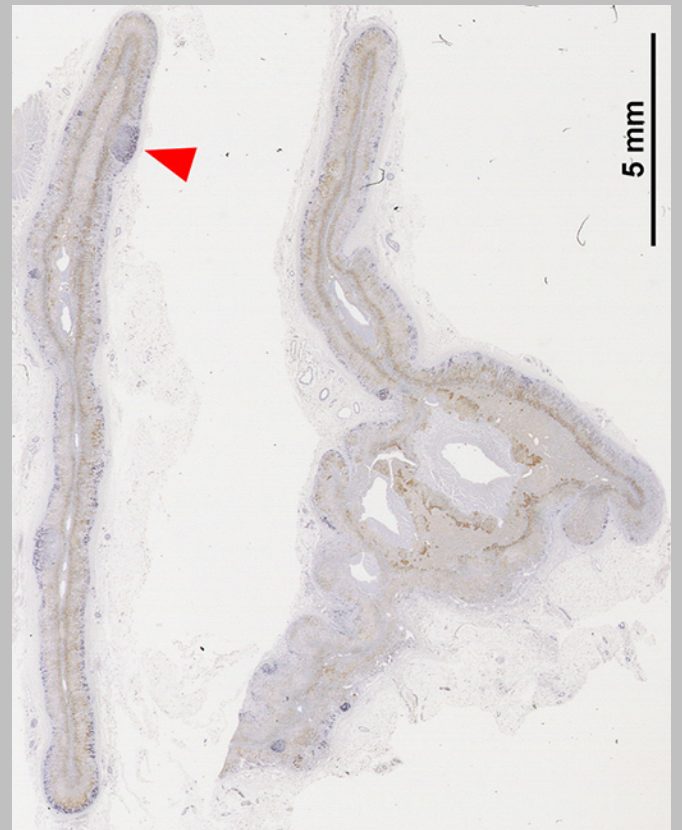
Case 10, A030



Case 12, A032

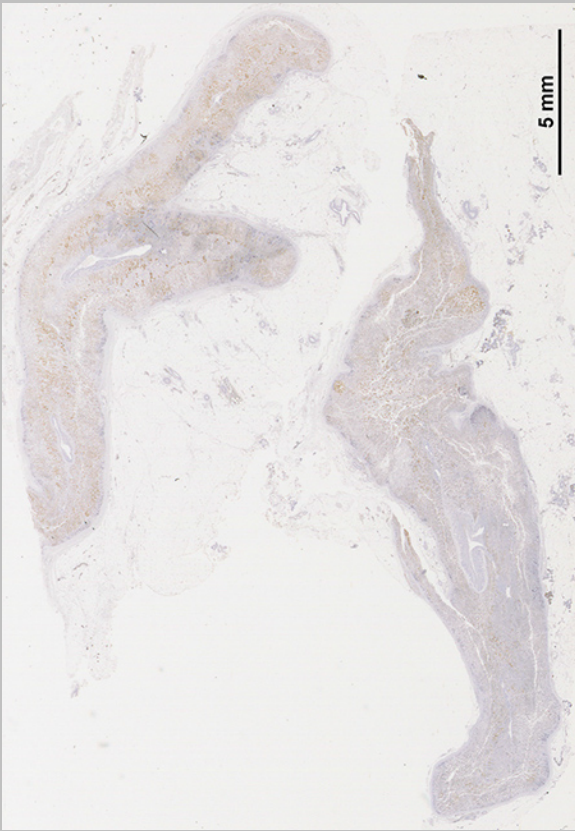


Case 14, A034

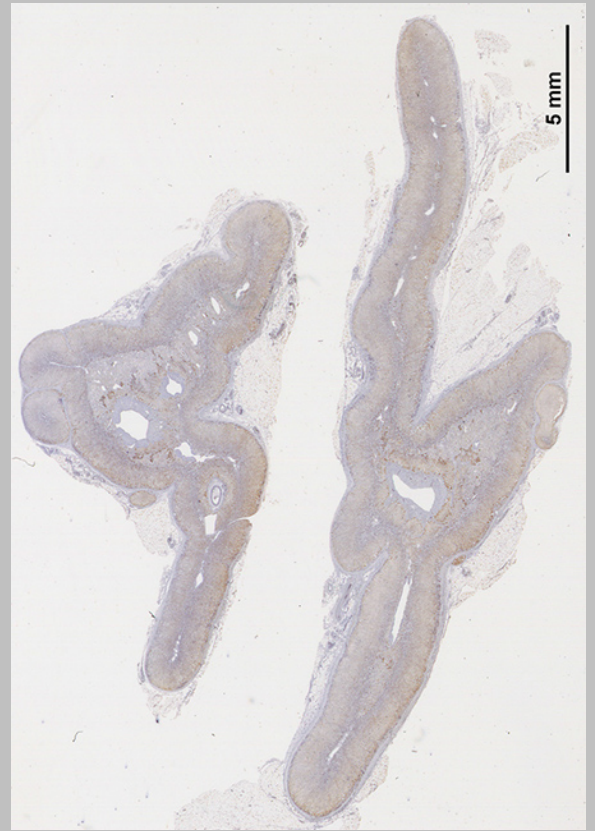


Case 16, A036

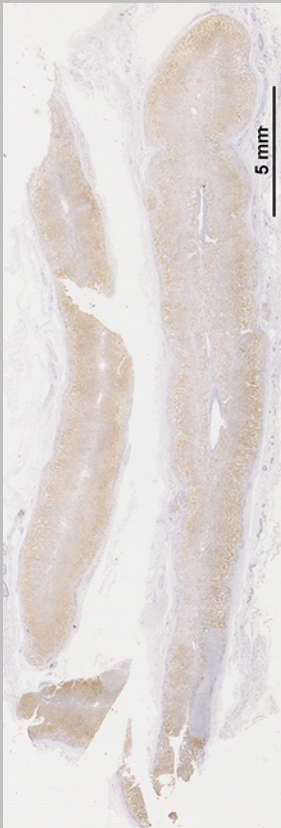
Supplementary Figure 1



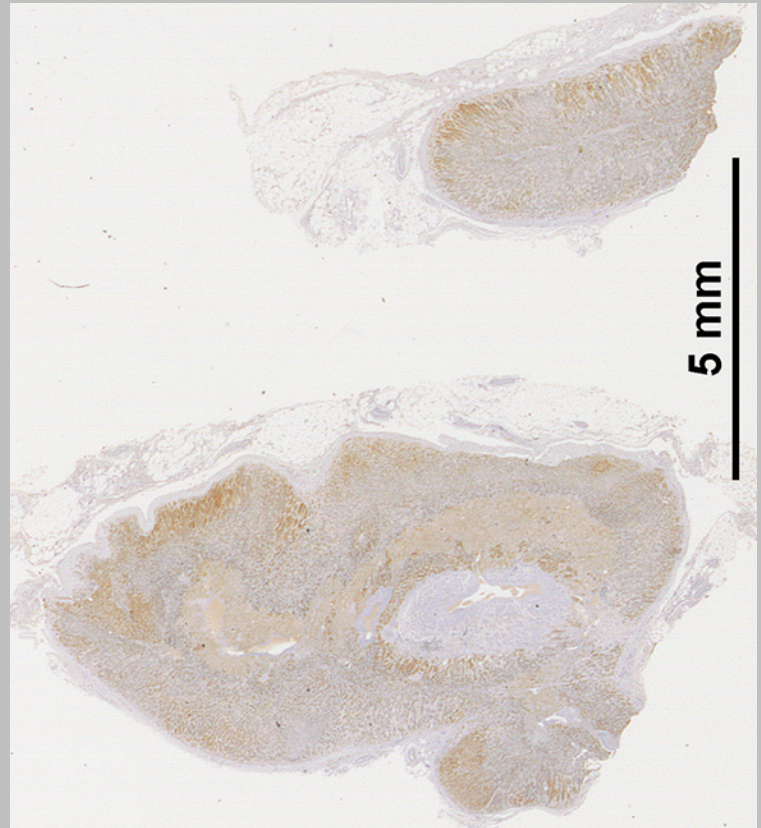
Case 19, A039



Case 21, A042

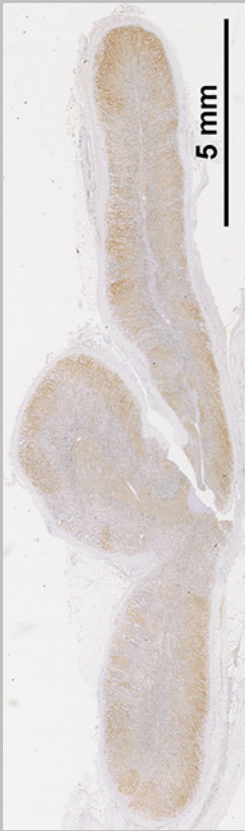


Case 22, A043

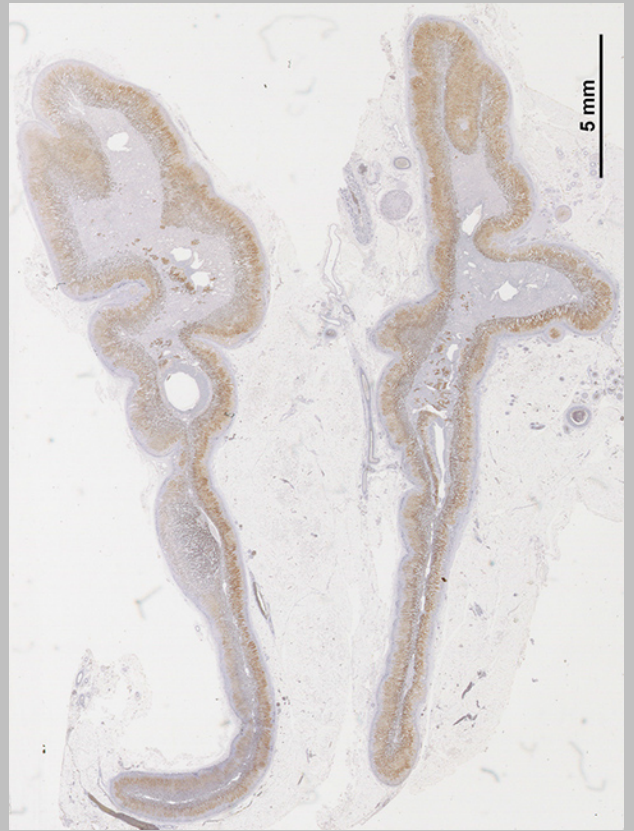


Case 23, A044

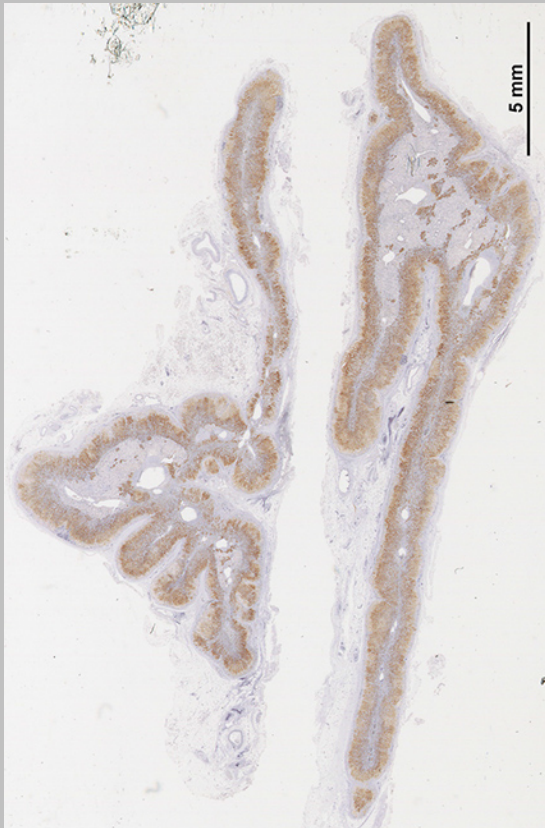
Supplementary Figure 1



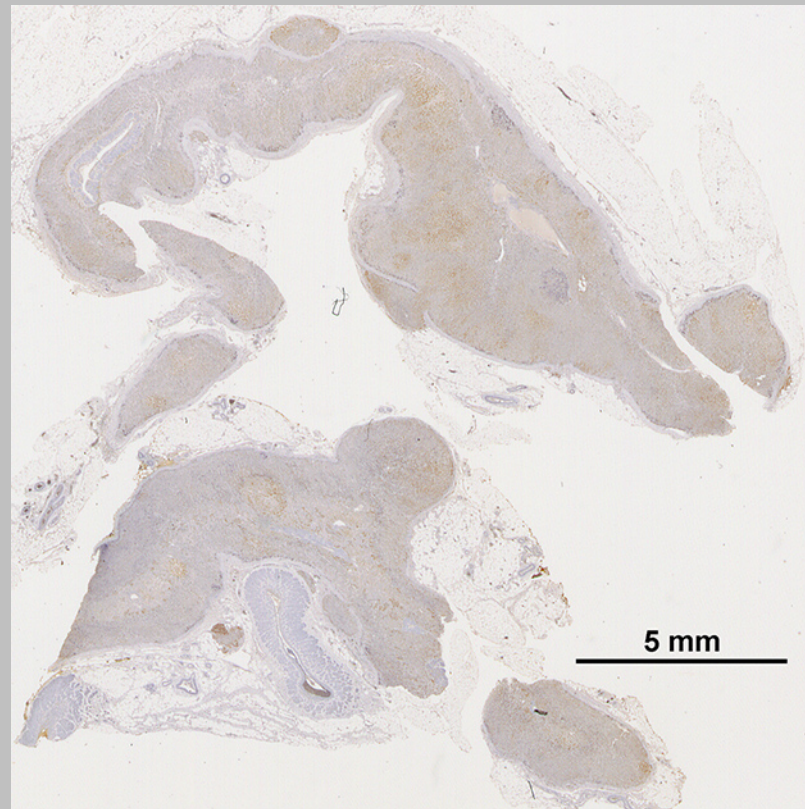
Case 23, A045



Case 24, A046

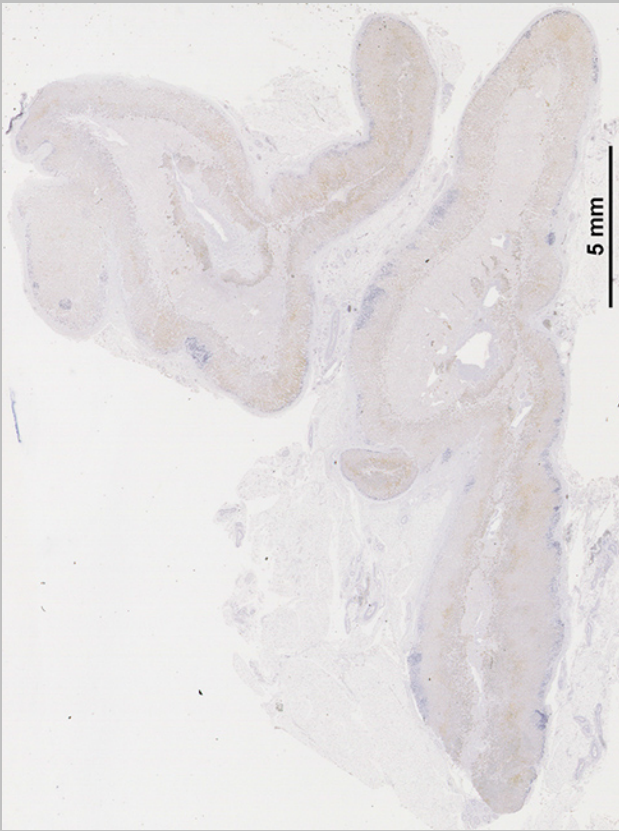


Case 25, A047



Case 27, A049

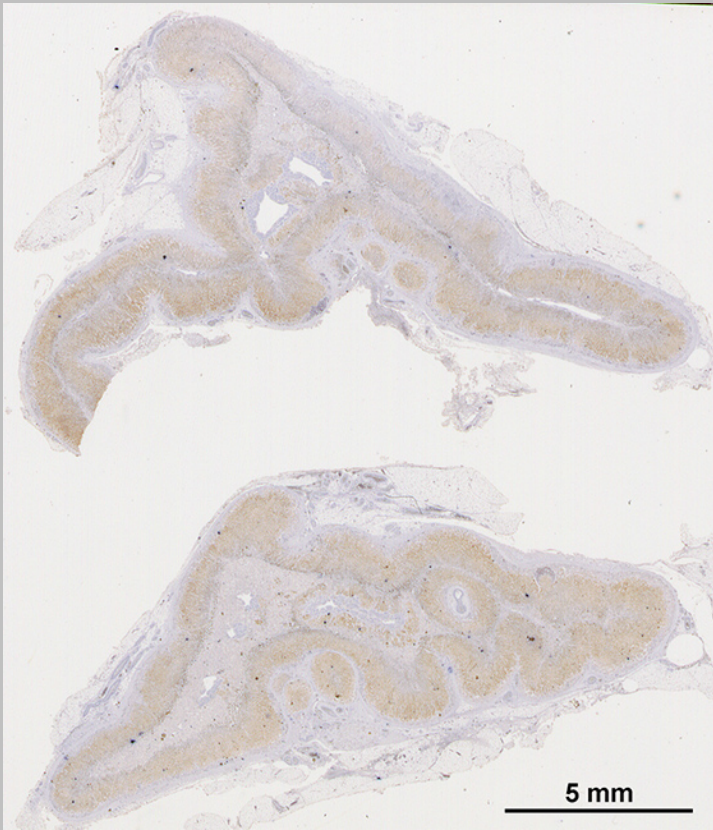
Supplementary Figure 1



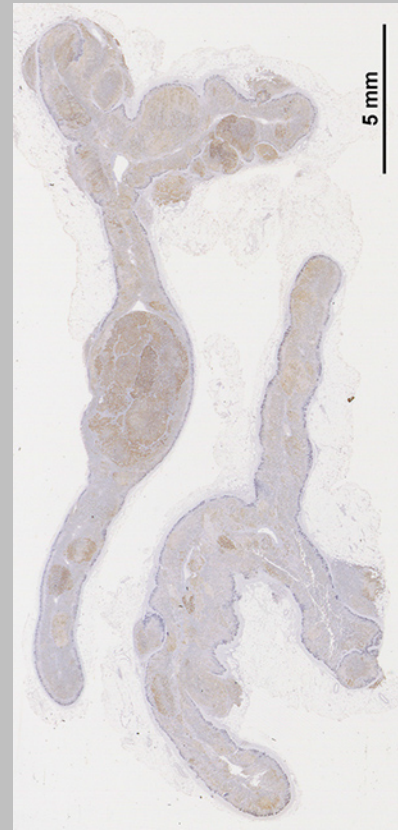
Case 28, A050



Case 29, A051

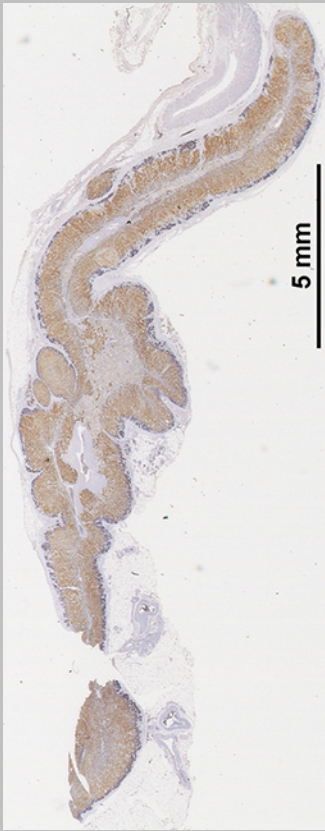


Case 30, A052

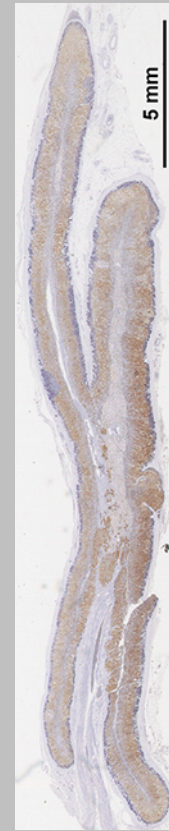


Case 31, A053

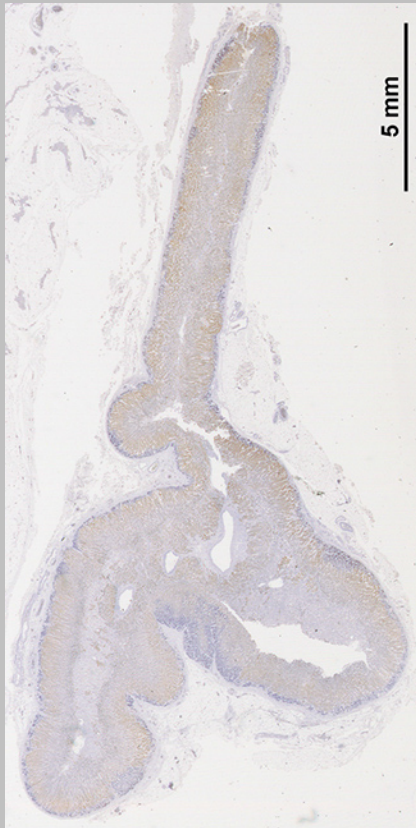
Supplementary Figure 1



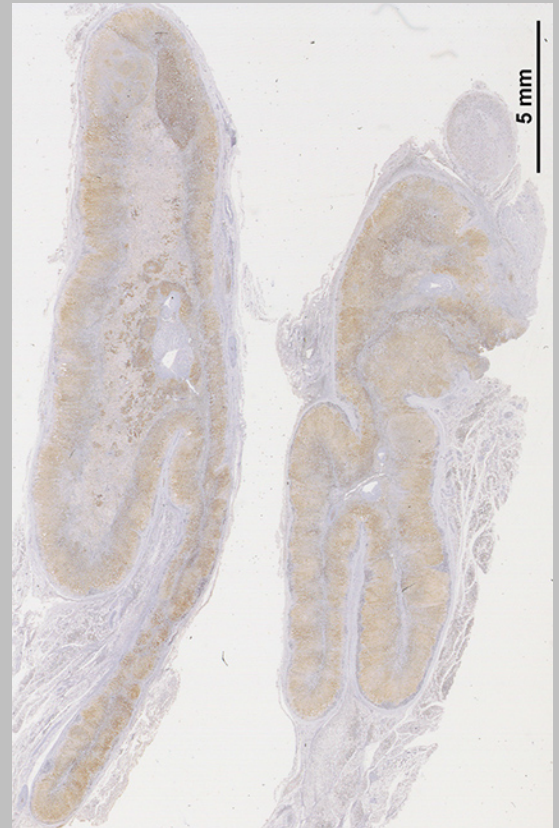
Case 32, A054



Case 32, A055

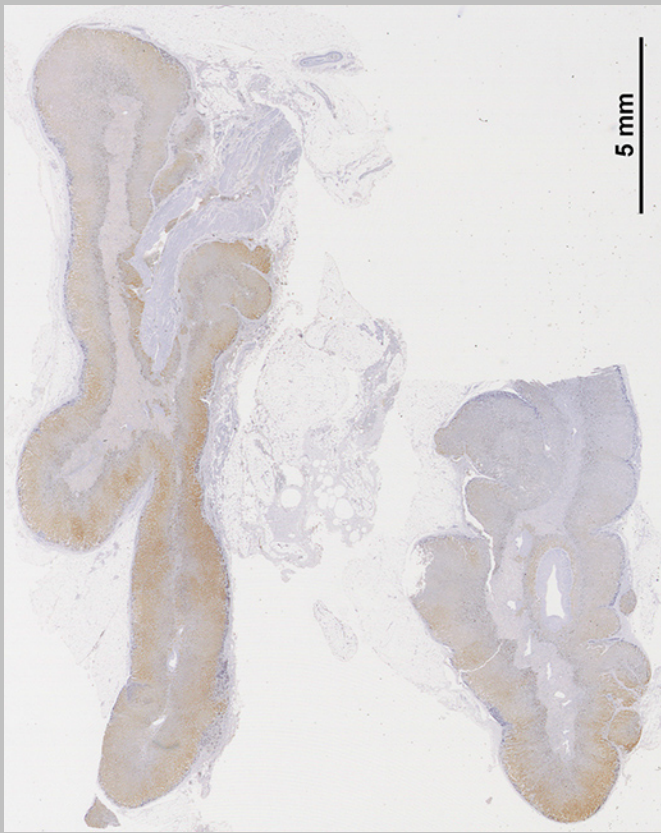


Case 36, A059

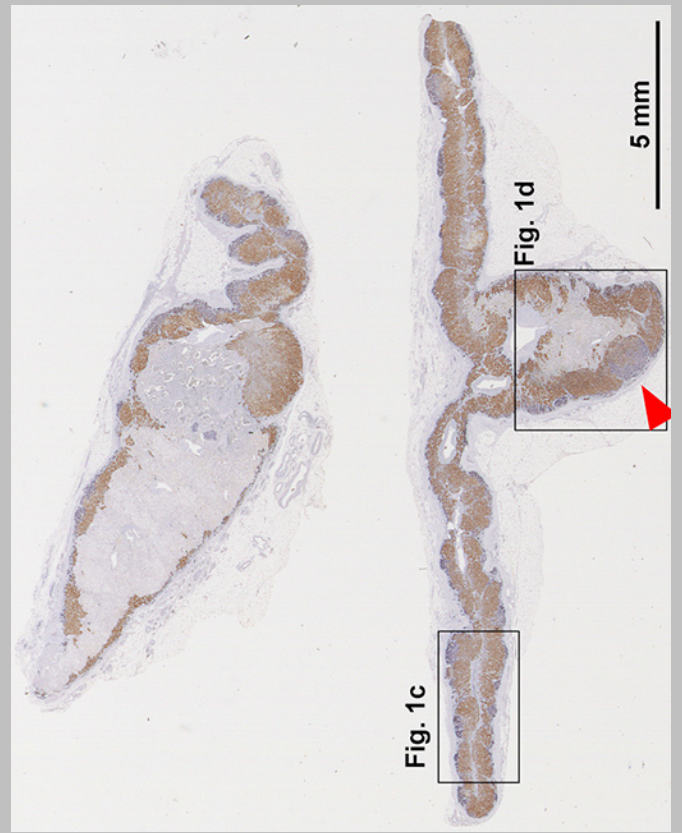


Case 37, A060

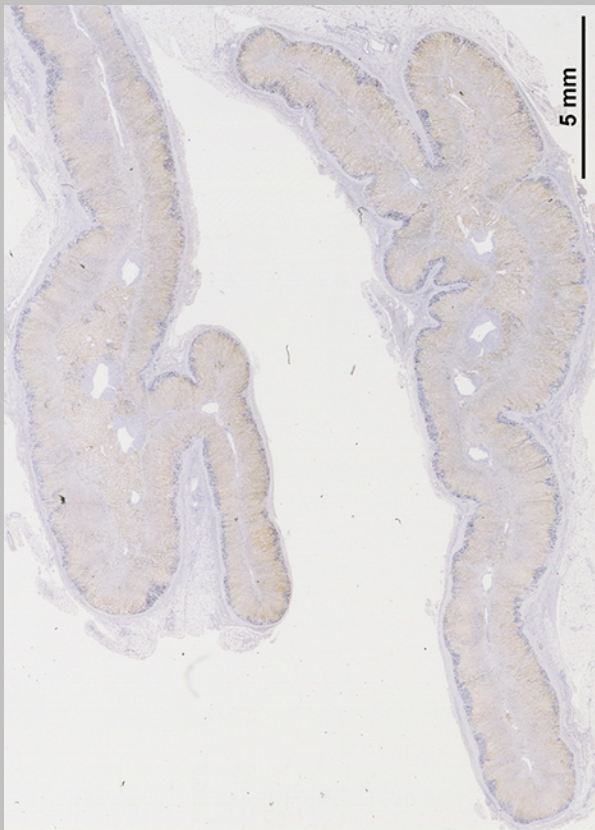
Supplementary Figure 1



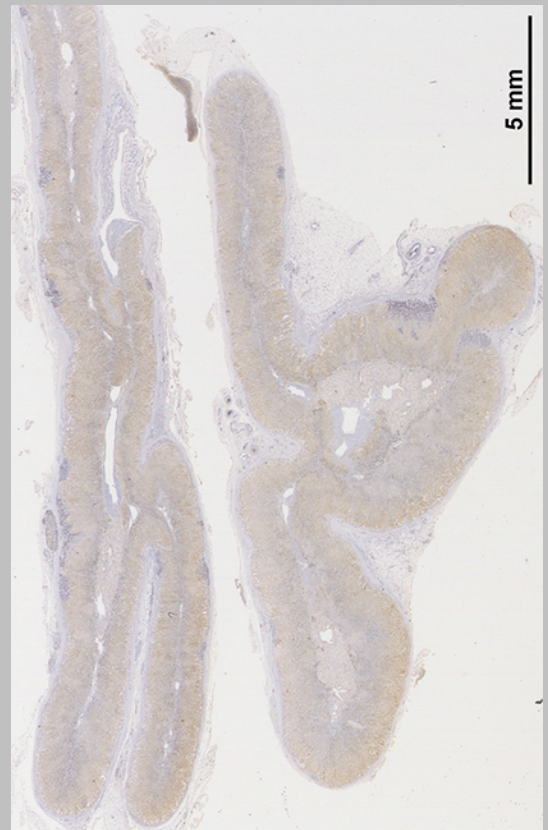
Case 38, A061



Case 40, A063

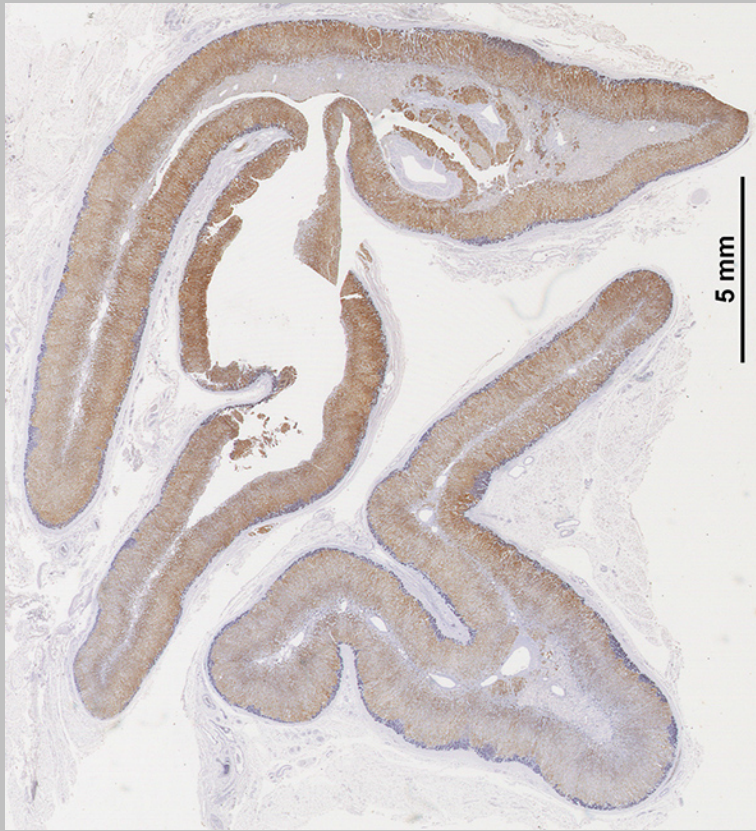


Case 42, A065

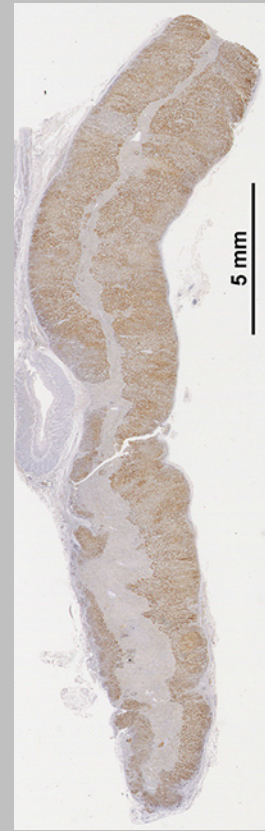


Case 43, A066

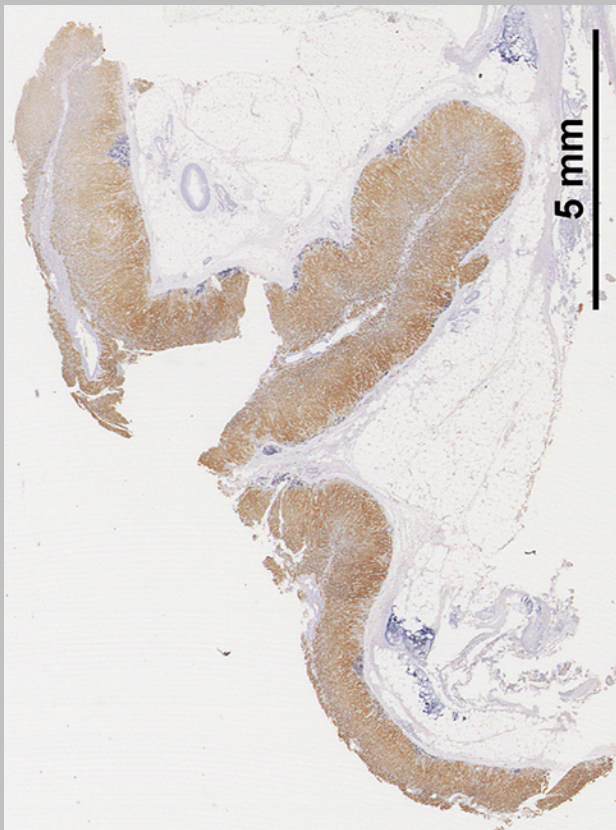
Supplementary Figure 1



Case 44, A067



Case 47, A071



Case 48, A072

Supplementary Table 1.

Case#	Section#	Age	Sex	Cause of death	KN		KM		TS		GEA		Average	
					AA/WAA (%)	NOA/ WAA (mm ²)	AA/WAA (%)	NOA/ WAA (mm ²)	AA/WAA (%)	NOA/ WAA (mm ²)	AA/WAA (%)	NOA/ WAA (mm ²)	AA/WAA (%)	NOA/ WAA (mm ²)
1	A021	0.75	F	post liver transplantation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000 ± 0.000
2	A022	1	M	heterotaxy syndrome	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000 ± 0.000
3	A023	1	F	brain tumor	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000 ± 0.000
4	A024	1.8	M	post liver transplantation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000 ± 0.000
5	A025	2	M	acute lung dysfunction	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000 ± 0.000
6	A026	3	F	pulmonary dysfunction	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000 ± 0.000
7	A027	10	M	encephalopathy due to Reye's syndrome	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000 ± 0.000
8	A028	11	F	malignant peripheral nerve sheath tumors	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000 ± 0.000
* 9	A029	17	F	liver cirrhosis										
10	A030	18	M	hemophagocytic syndrome	0.000	0.000	0.000	0.000	0.169	0.069	0.000	0.000	0.042 ± 0.042	0.017 ± 0.017
* 11	A031	19	M	pulmonary hypertension										
12	A032	19	F	post liver transplantation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000 ± 0.000
* 13	A033	22	M	myocarditis										
14	A034	22	F	malignant intrapelvic tumor	5.324	0.298	9.941	0.894	10.663	0.954	5.573	0.596	7.875 ± 1.410	0.685 ± 0.151
* 15	A035	23	M	acute renal failure										
16	A036	24	F	pulmonary hypertension	1.922	0.233	1.653	0.280	2.520	0.373	1.392	0.140	1.871 ± 0.242	0.257 ± 0.049
* 17	A037	24	M	brain hemorrhage										
* 18	A038	24	M	acute myelocytic leukemia										
19	A039	28	F	pulmonary alveolar hemorrhage	1.412	0.128	0.294	0.064	1.569	0.128	1.099	0.064	1.094 ± 0.284	0.096 ± 0.018
* 20	A040, A0	28	M	sepsis										
21	A042	29	M	sepsis due to acute myelocytic leukemia	0.000	0.000	0.000	0.000	0.485	0.000	0.777	0.066	0.315 ± 0.192	0.016 ± 0.016
22	A043	29	F	subarachnoid hemorrhage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000 ± 0.000
23	A044, A0	33	M	sepsis	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000 ± 0.000
24	A046	33	M	acute heart failure	0.000	0.000	0.000	0.000	0.066	0.060	0.000	0.000	0.016 ± 0.016	0.015 ± 0.015
25	A047	34	M	aorta stenosis	0.795	0.250	0.723	0.188	1.327	0.250	0.614	0.063	0.865 ± 0.159	0.188 ± 0.044
* 26	A048	36	F	brain tumor										
27	A049	38	F	sepsis	3.237	0.292	0.860	0.097	0.718	0.097	1.459	0.195	1.568 ± 0.579	0.171 ± 0.047
28	A050	38	M	liver cirrhosis	3.550	0.369	6.115	0.474	7.646	0.580	3.312	0.264	5.156 ± 1.045	0.422 ± 0.068
29	A051	39	M	myelodysplastic syndrome	0.637	0.140	0.660	0.187	0.458	0.093	0.550	0.047	0.576 ± 0.046	0.117 ± 0.030
30	A052	40	F	gastric cancer	0.895	0.152	0.770	0.152	2.162	0.228	2.255	0.152	1.520 ± 0.399	0.171 ± 0.019
31	A053	40	F	pulmonitis due to systemic lupus erythematosus	0.000	0.000	0.000	0.000	0.000	0.000	0.415	0.085	0.104 ± 0.104	0.021 ± 0.021
32	A054, A0	41	F	ovarian carcinoma	1.575	0.085	2.318	0.256	3.696	0.512	1.411	0.256	2.250 ± 3.099	0.277 ± 0.088
* 33	A056	42	F	heart failure										
* 34	A057	43	M	convulsion, respiration failure										
* 35	A058	44	F	uterine sarcoma										
36	A059	44	F	renal cell carcinoma	20.350	0.399	10.896	0.399	21.947	0.599	8.255	0.399	15.362 ± 3.400	0.449 ± 0.050
37	A060	45	M	heart failure	1.683	0.329	0.899	0.219	1.420	0.329	0.915	0.219	1.229 ± 0.194	0.274 ± 0.032
38	A061	45	M	lung cancer	0.967	0.074	0.747	0.148	2.661	0.296	2.709	0.148	1.771 ± 0.530	0.166 ± 0.047
* 39	A062	45	M	acute leukemia										
40	A063	45	M	hepatic failure due to liver cancer	6.128	0.563	8.023	1.000	7.194	0.750	3.444	0.375	6.197 ± 0.996	0.672 ± 0.134
* 41	A064	45	M	C type hepatitis										
42	A065	45	M	heart failure	0.804	0.051	3.470	0.358	12.272	1.126	5.803	0.716	5.587 ± 2.451	0.563 ± 0.232
43	A066	47	M	bronchiectasis	5.379	0.339	6.231	0.621	8.916	0.847	3.564	0.282	6.022 ± 1.113	0.523 ± 0.131
44	A067	48	F	pulmonary hypertension	0.804	0.137	1.629	0.137	3.923	0.548	1.328	0.228	1.921 ± 0.689	0.263 ± 0.098

*	45	A068	49	M	myelodysplastic syndrome															
*	46	A069, A07	50	M	gastric carcinoma															
	47	A071	50	M	heart failure	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	± 0.000	0.000	± 0.000	
	48	A072	37	M	acute pancreatitis	2.290	0.504	3.283	1.008	6.368	1.259	1.855	0.252	3.449	± 1.018	0.756	± 0.230			

*: removed samples due to low quality staining. Bold characters are shown in Table 1. Each value of AA/WAA and NOA/WAA analyzed by KN, KM, TS, and GEA is shown.