

Early-onset immune response to *Haemonchus contortus* infection in resistant Santa Ines suckling lambs compared with susceptible Ile de France

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Table S1. *Haemonchus contortus* worm burden averages (minimum and maximum values) of Ile de France and Santa Ines suckling lambs experimentally infected.

<i>H. contortus</i> stages	Ile de France (n=8)	Santa Ines (n=8)	P-value
L4 early	75 (3-173)	64 (0-140)	0.693
Female late L4	92 (33-181)	47 (0-135)	0.108
Male late L4	61 (10-100)	42 (0-120)	0.393
Female early L5	199 (95-311)	60 (0-164)	0.004
Male early L5	240 (156-327)	115 (0-312)	0.030
Adult female	327 (80-630)	158 (0-297)	0.046
Adult male	244 (62-403)	110 (0-254)	0.037
Total worm burden	1237 (653-1809)	597 (1-1284)	0.016

L4 = fourth stage larvae, L5 = fifth stage juvenile.

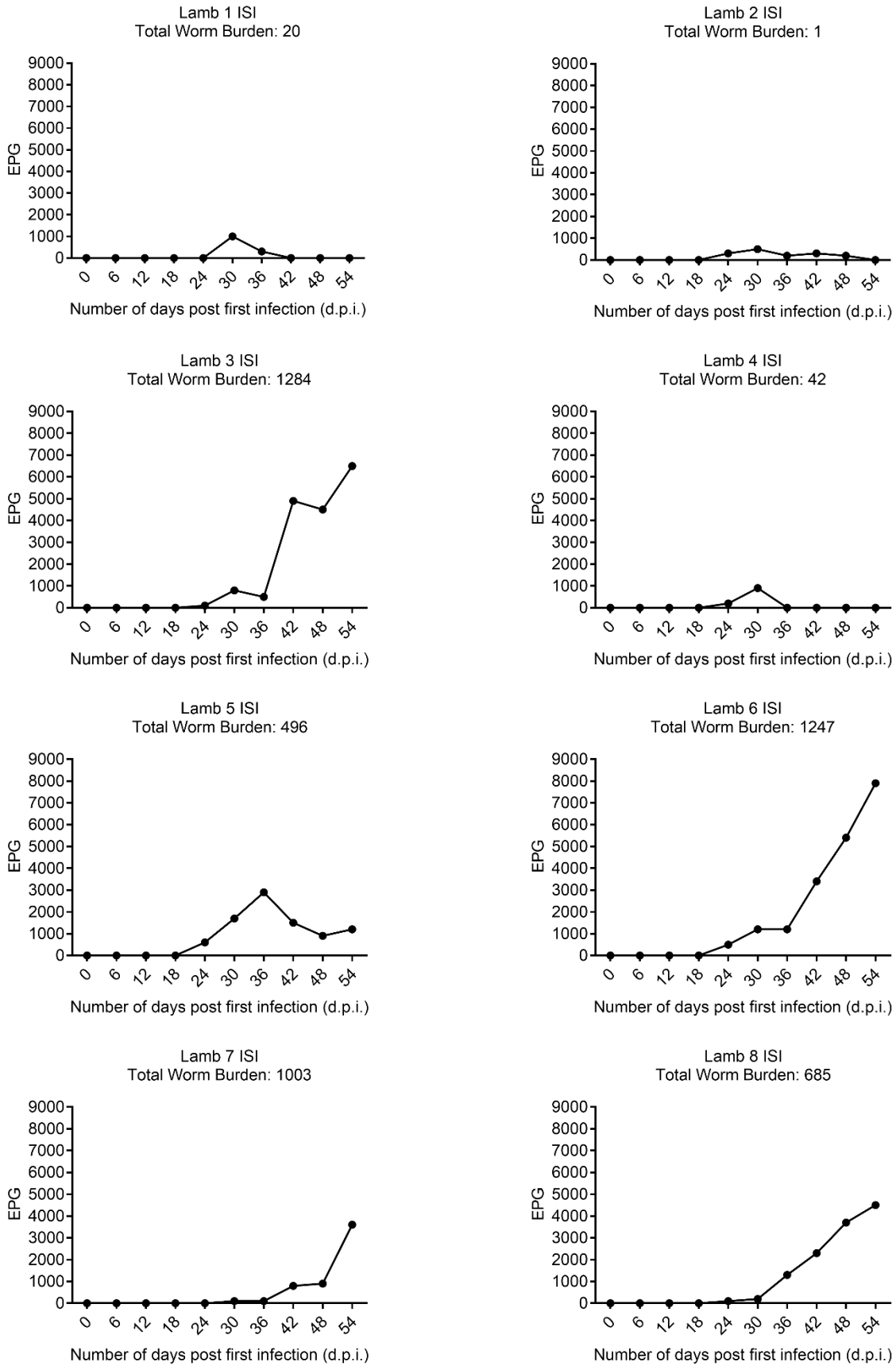


Figure S1. Eggs per gram of faeces (EPG) of the eight Santa Ines lambs experimentally infected with *Haemonchus contortus*.

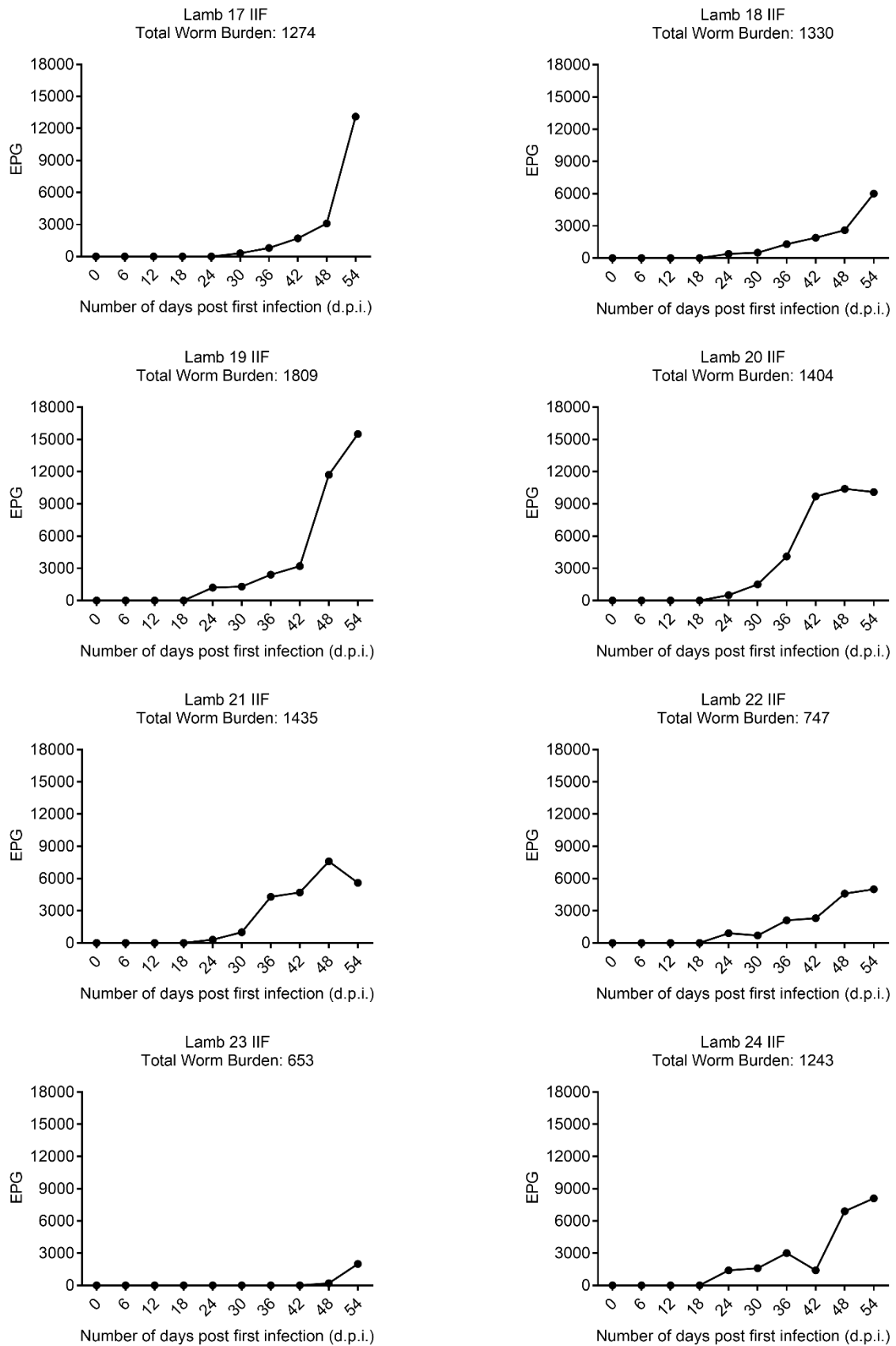


Figure S2. Eggs per gram of faeces (EPG) of the eight Ile de France lambs experimentally infected with *Haemonchus contortus*.

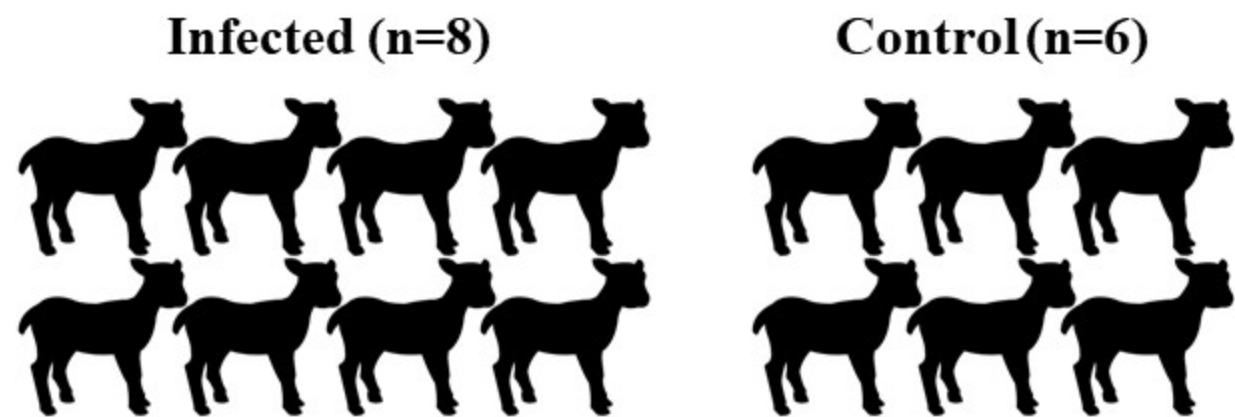
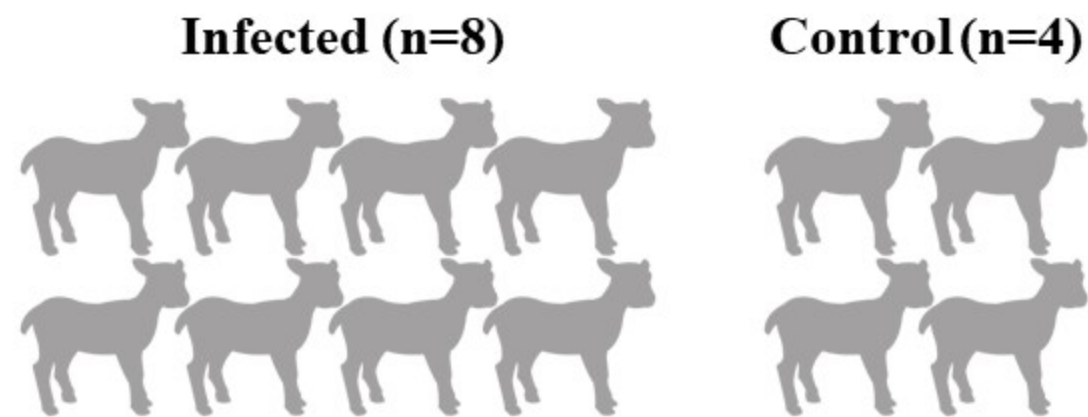
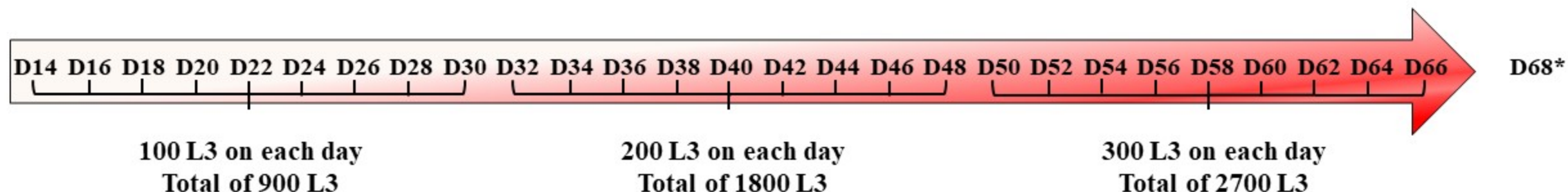
Table S2. Mucin stain classification of abomasal tissue (fundus and pylorus) sections of Santa Ines and Ile de France suckling lambs experimentally infected with *Haemonchus contortus* and non-infected control.

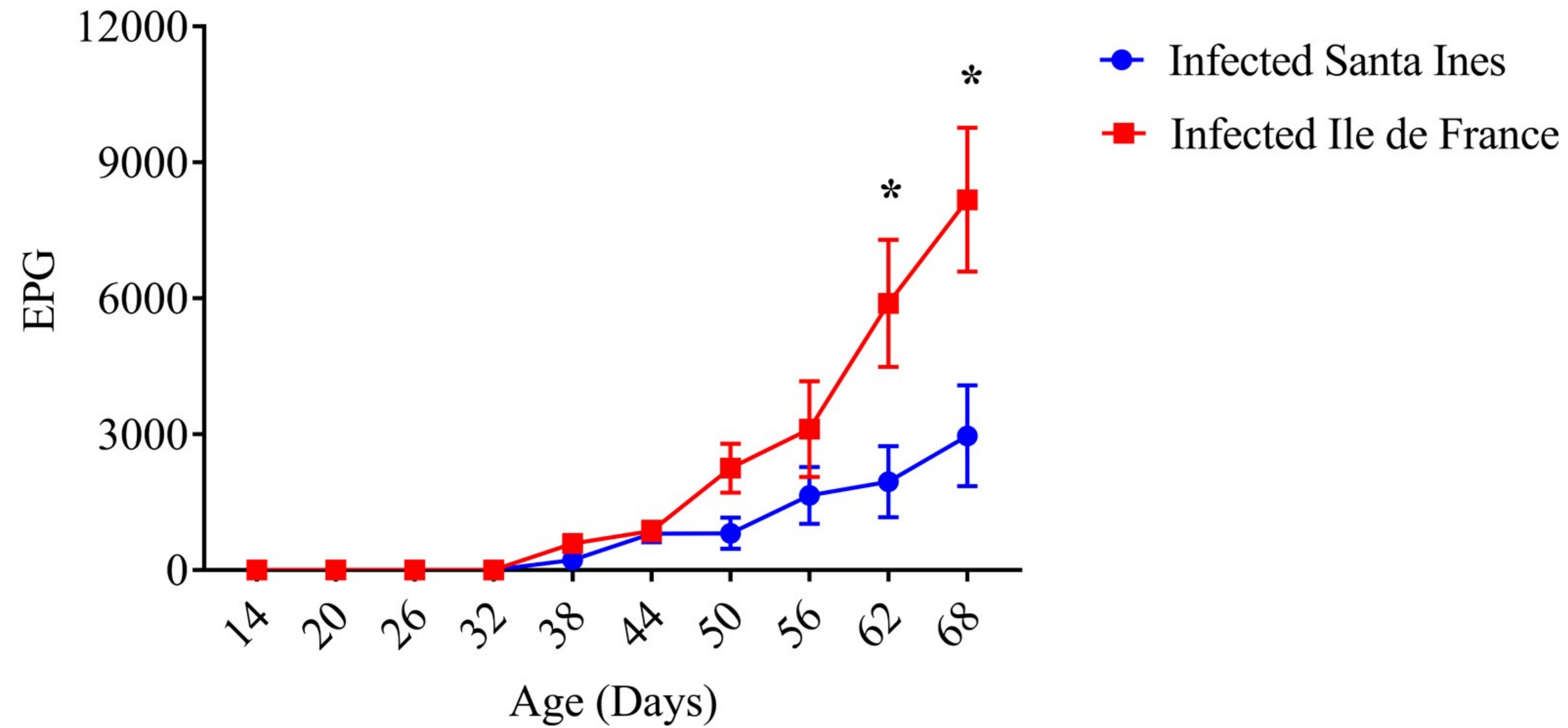
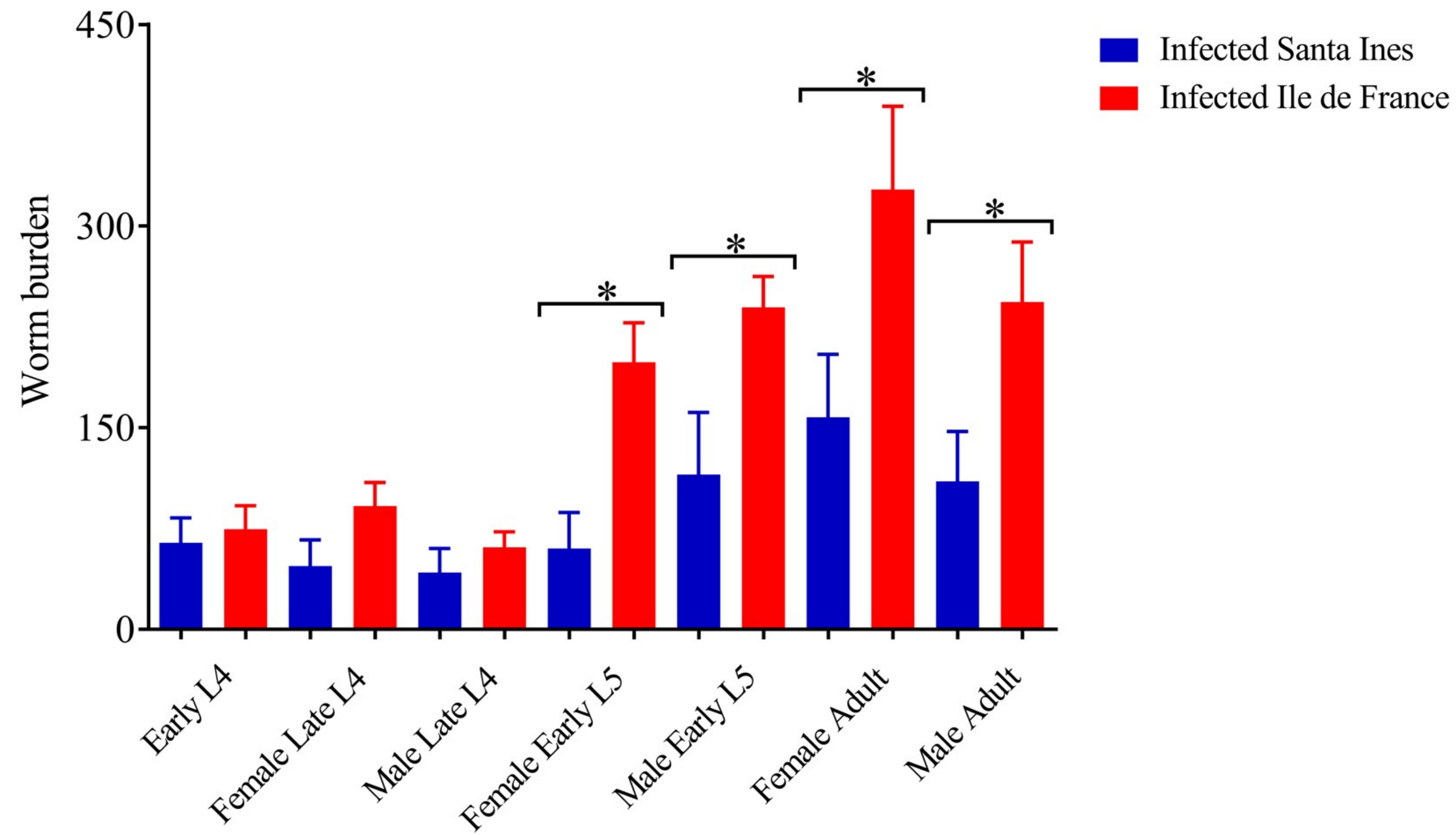
Abomasal Region	Classification*	Ile de France		Santa Ines	
		Infected (n=8)	Control (n=4)	Infected (n=8)	Control (n=6)
Fundic	Weak	5	4	0	6
	Moderate	3	0	6	0
	Strong	0	0	2	0
Pyloric	Weak	2	4	2	4
	Moderate	5	0	1	2
	Strong	1	0	5	0

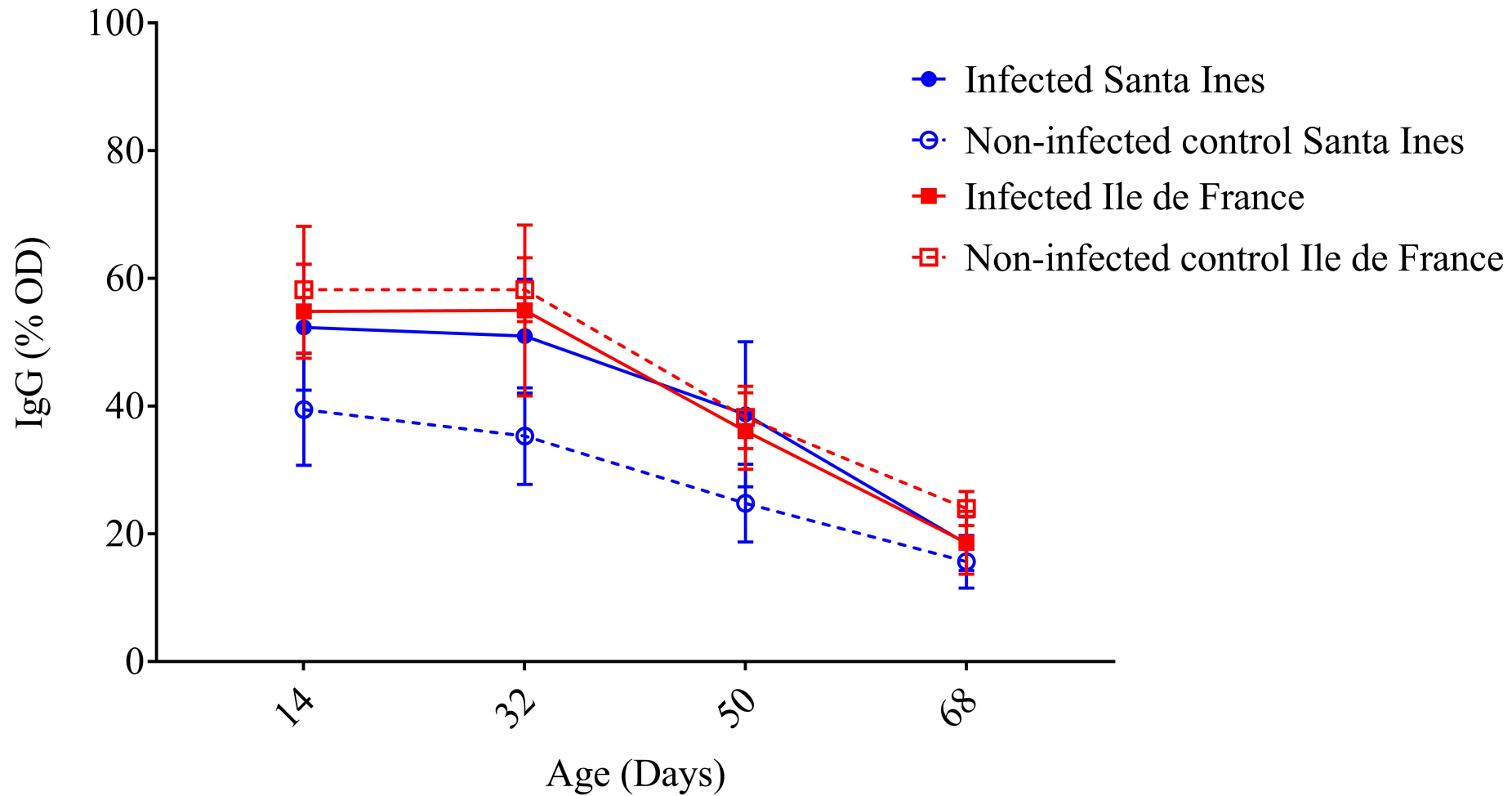
*Strong, moderate and weak staining using Periodic Acid Schiff (PAS) for all mucins.

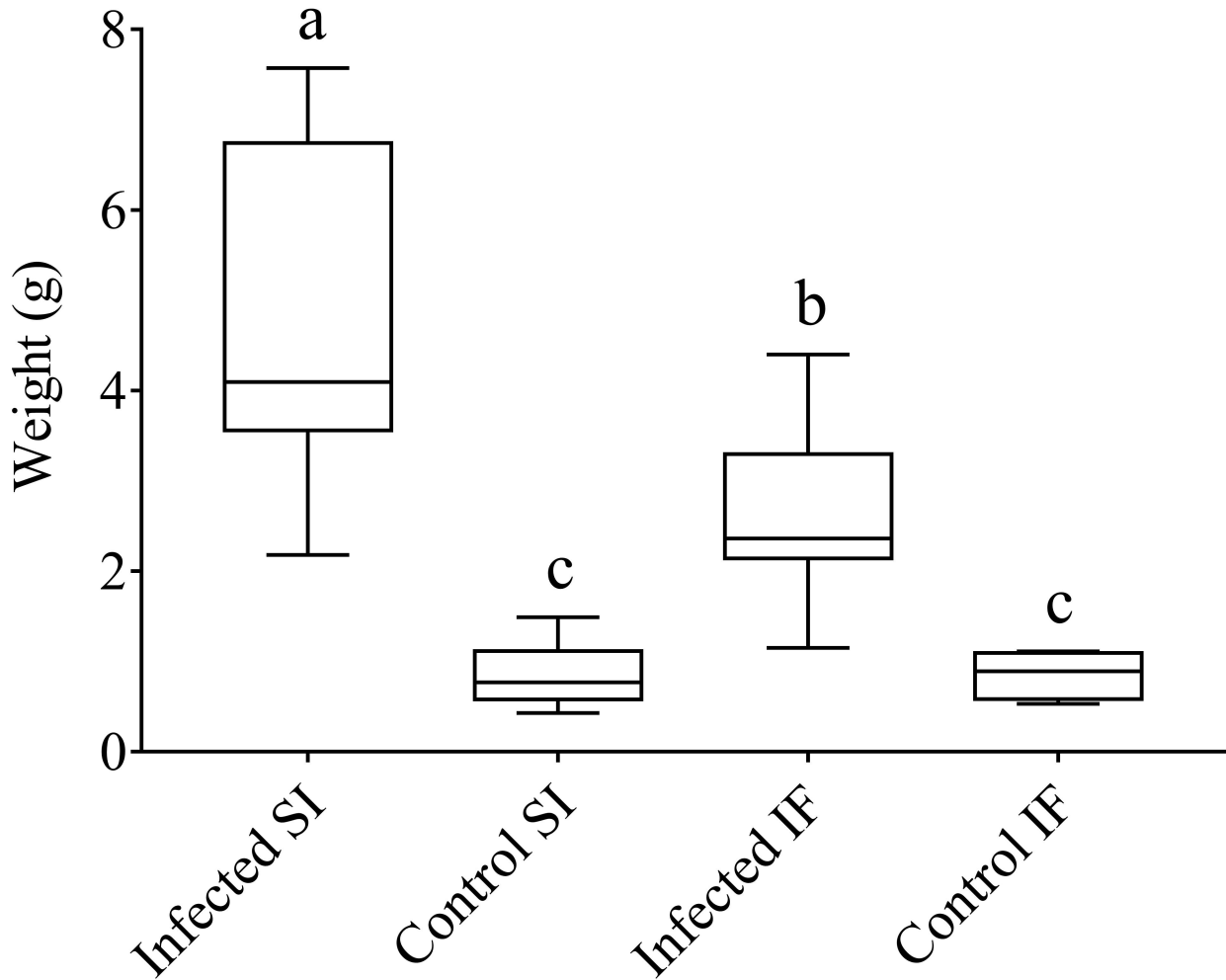
Table S3. Live weight mean (\pm standard error) in kilogram (kg) of Ile de France and Santa Ines suckling lambs non-infected and experimentally infected with *Haemonchus contortus*, at the day of birth, at the beginning of the infection protocol (14 days old; day of the first infection) and at the end of the trial (68 days old; 54 days post first infection).

Age/Weigh (kg)	Ile de France		Santa Ines		Effects (P-value)		
	Infected (n=8)	Control (n=4)	Infected (n=8)	Control (n=6)	Breed	Infection status	Breed x Infection status
Day of birth	4.825 (\pm 0.39)a	5.079 (\pm 0.37)a	4.381 (\pm 0.34)ab	3.375 (\pm 0.25)b	0.009	0.327	0.108
14 days old (day of the first infection)	8.294 (\pm 0.58)ab	9.713 (\pm 0.59)a	7.931 (\pm 0.59)ab	6.625 (\pm 0.66)b	0.015	0.932	0.048
68 days old (54 days post first infection)	20.53 (\pm 0.92)a	22.01 (\pm 1.07)a	18.93 (\pm 1.83)a	15.93 (\pm 1.38)a	0.019	0.626	0.155

A **Santa Ines****Ile de France****B** **Age in days (27 infections at 2 days intervals)**

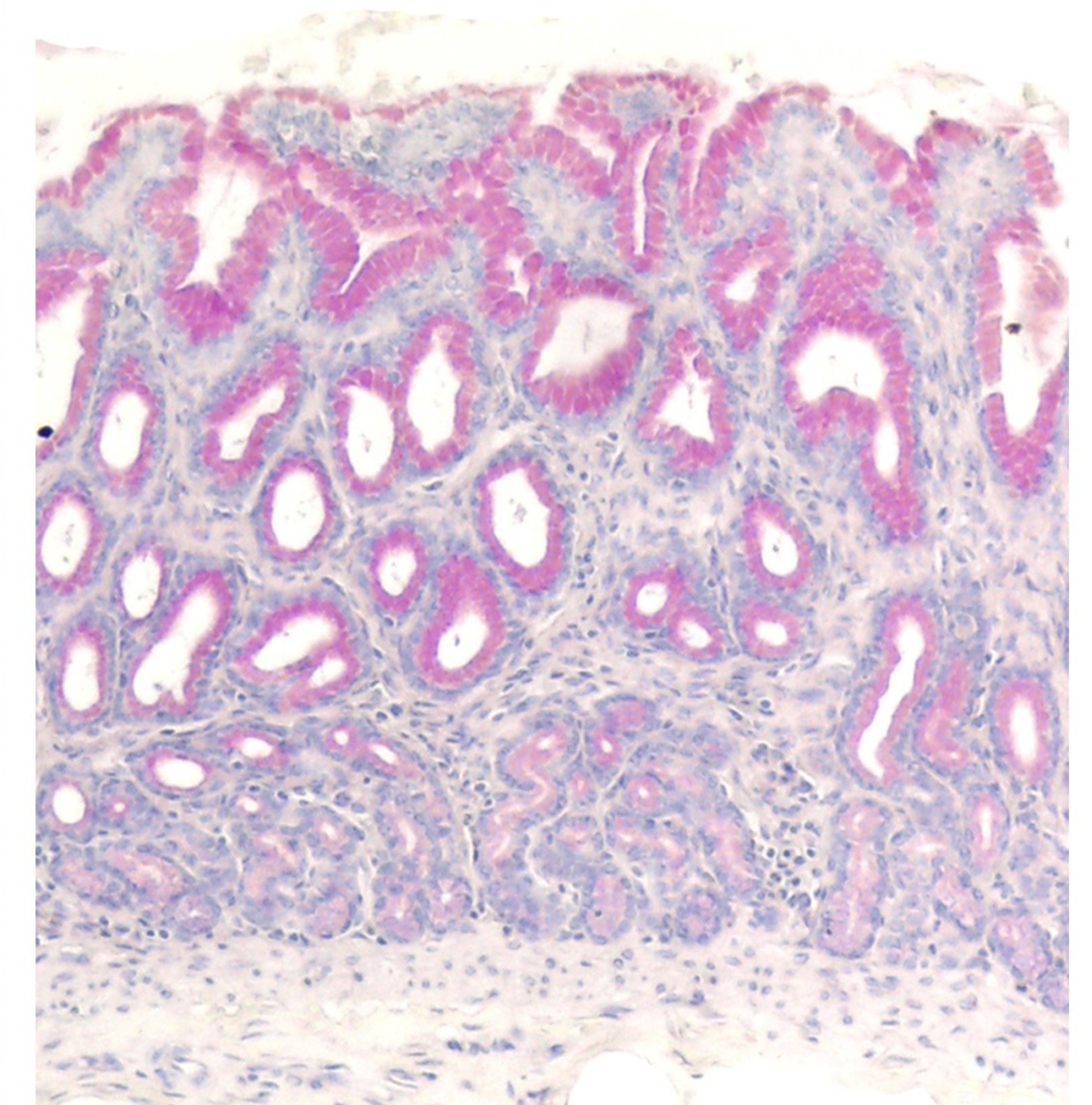
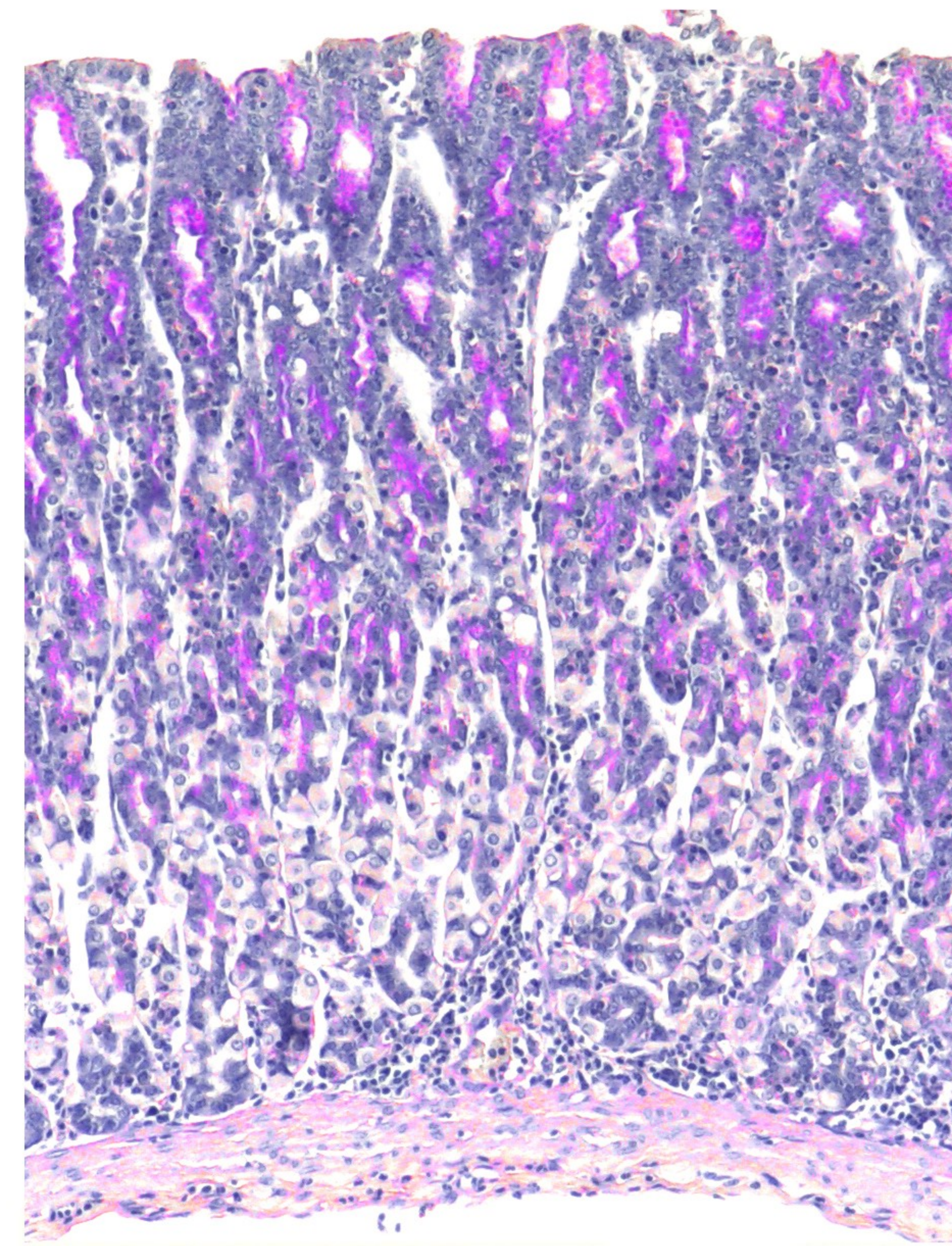
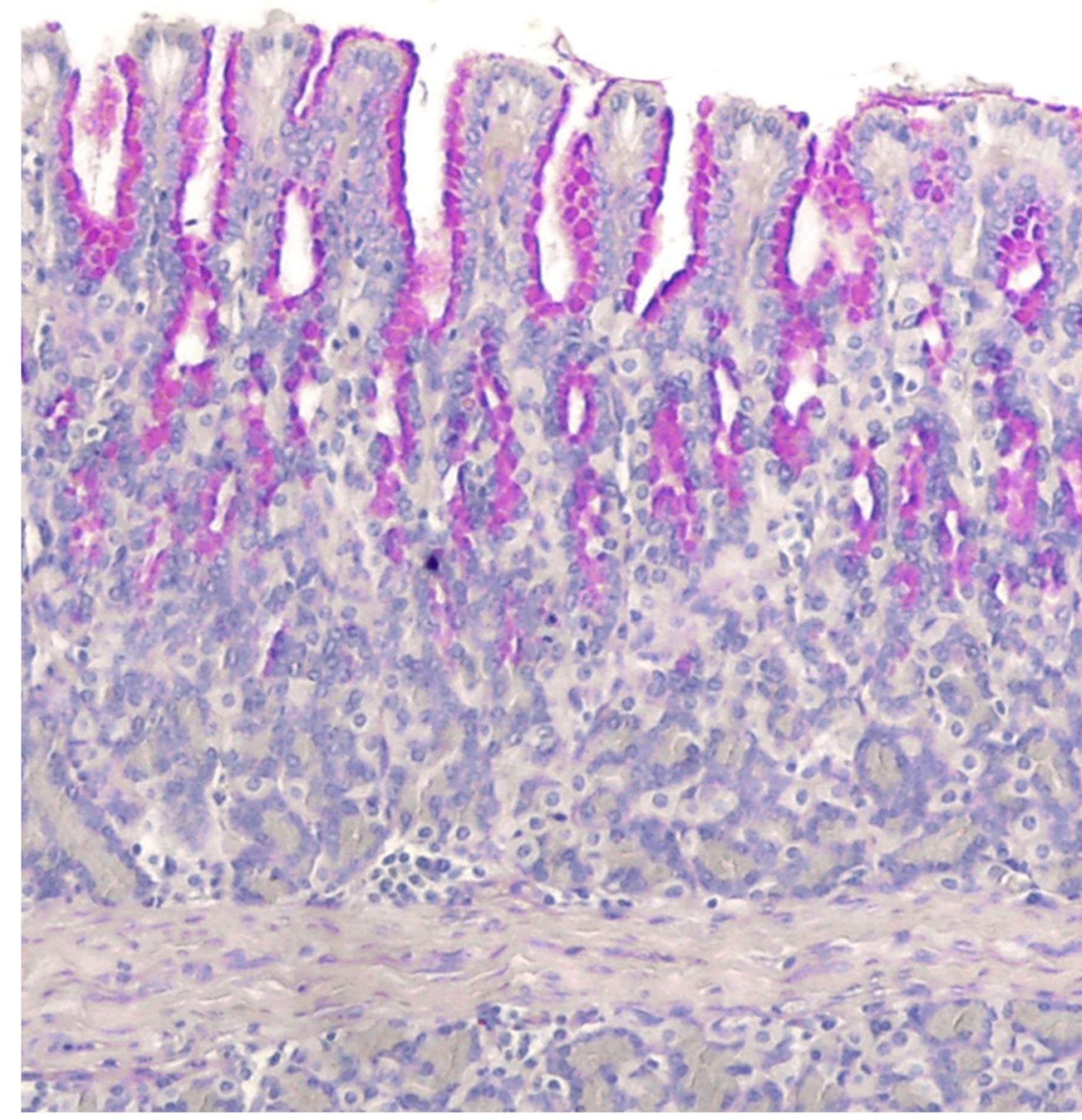
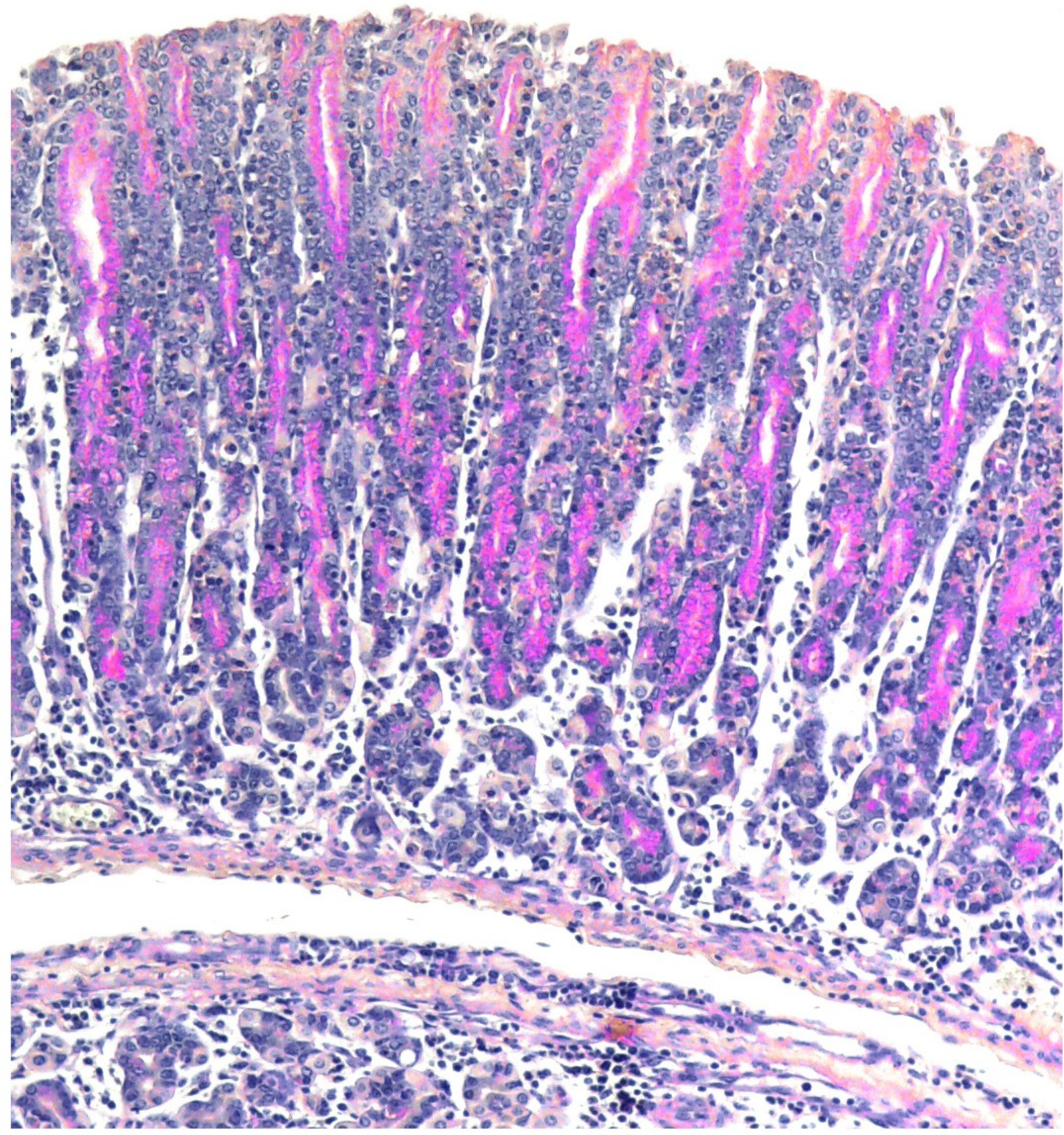
A**B**





Fundus

Pylorus



A

D

G

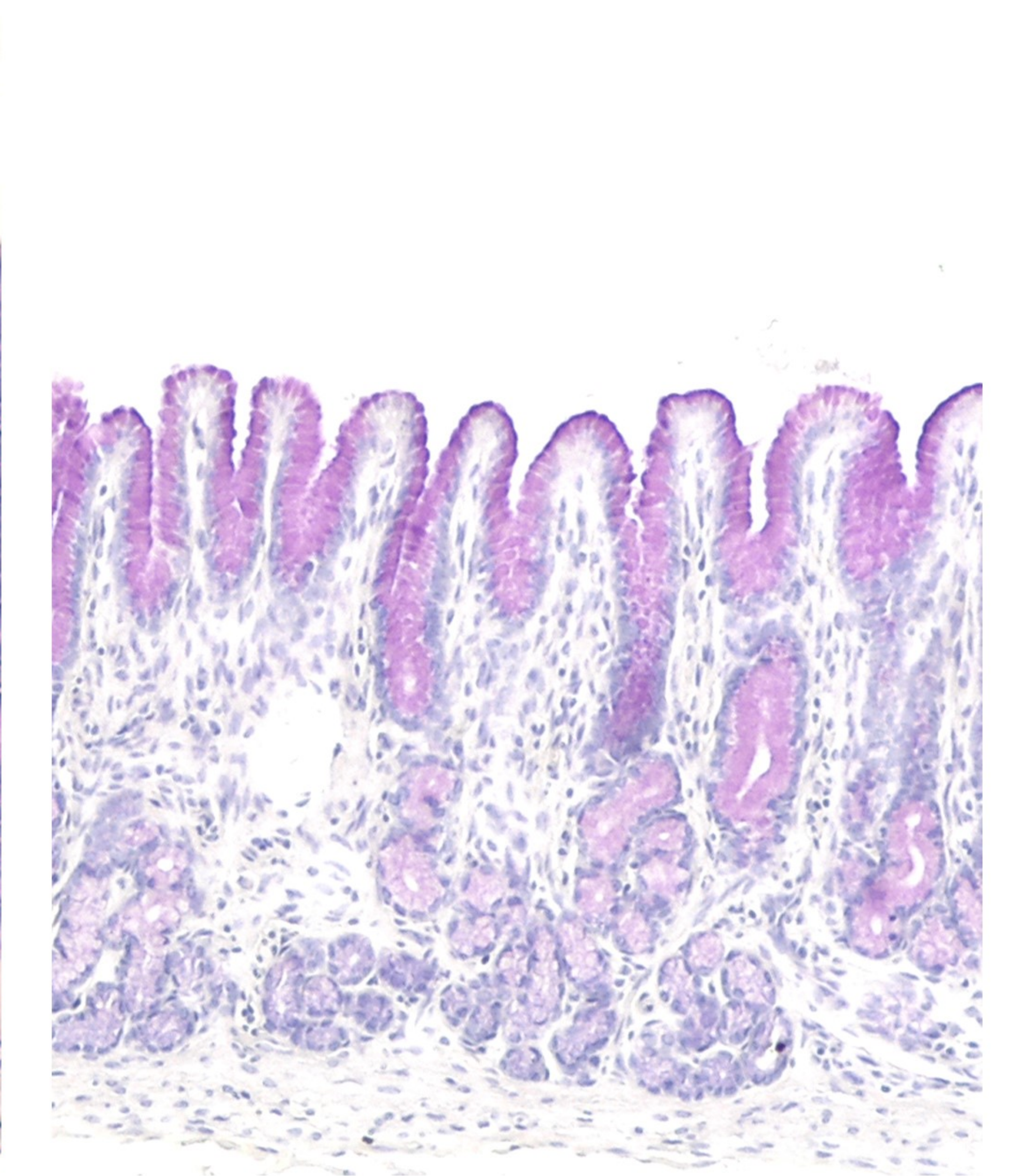
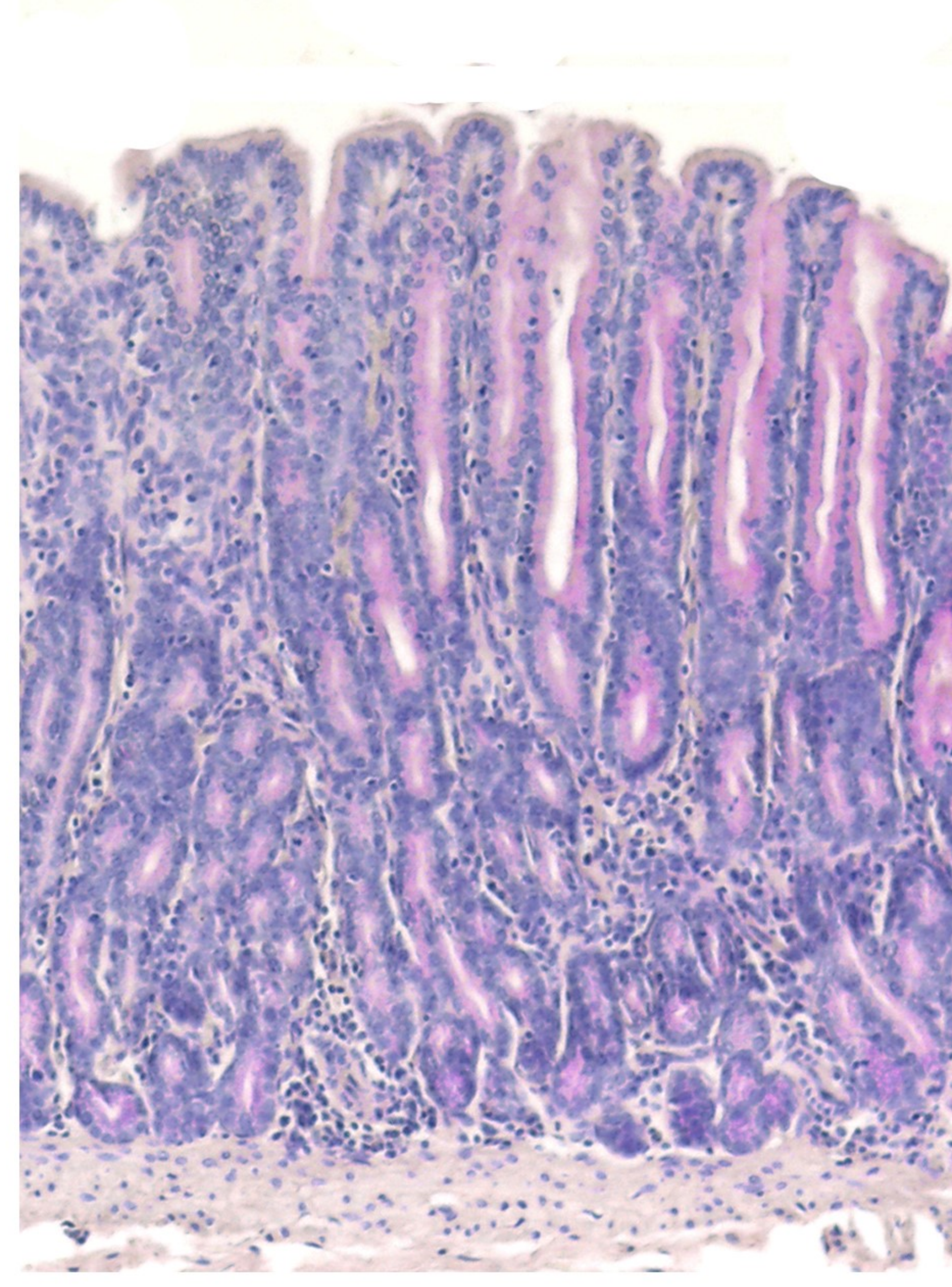
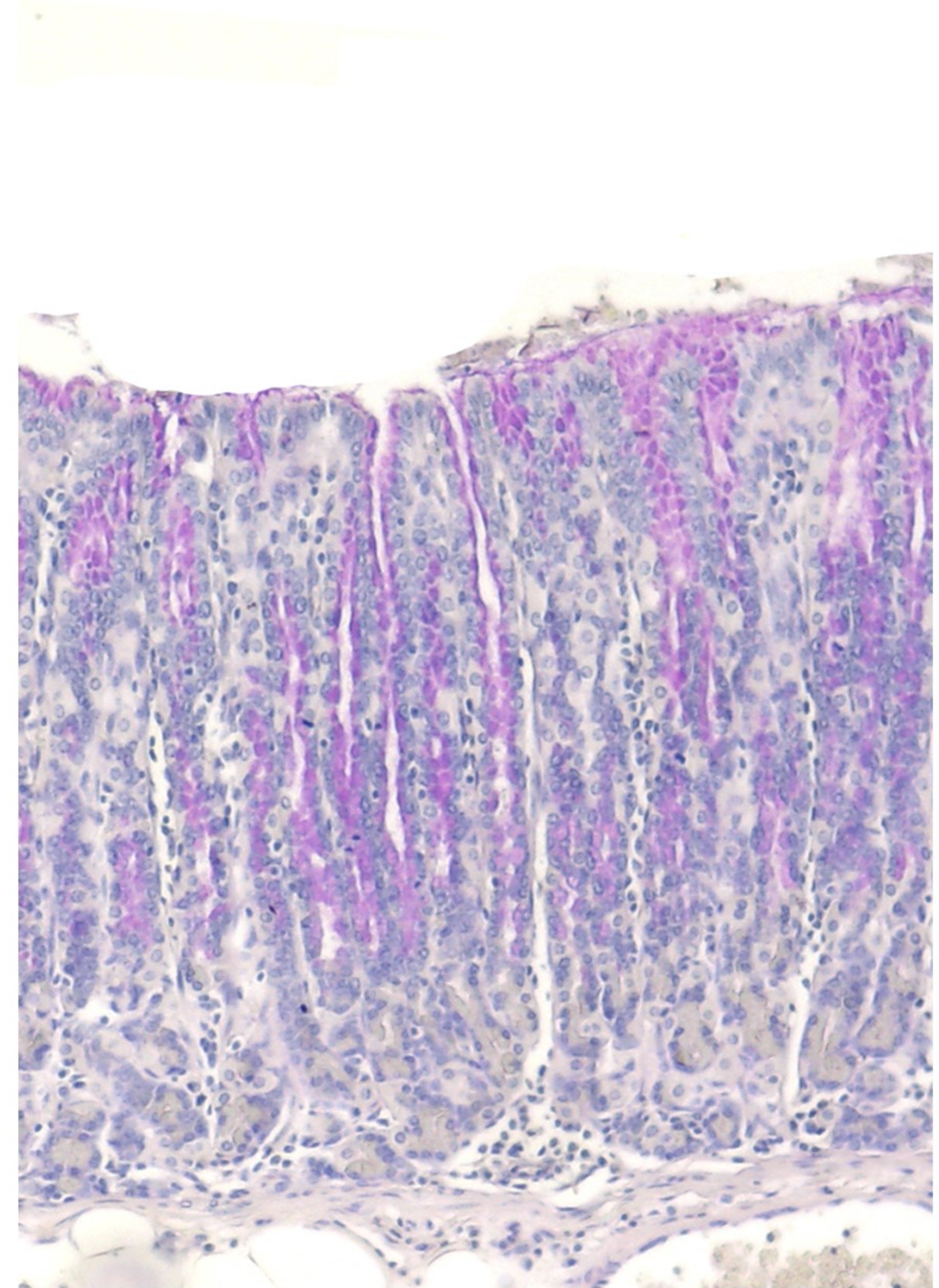
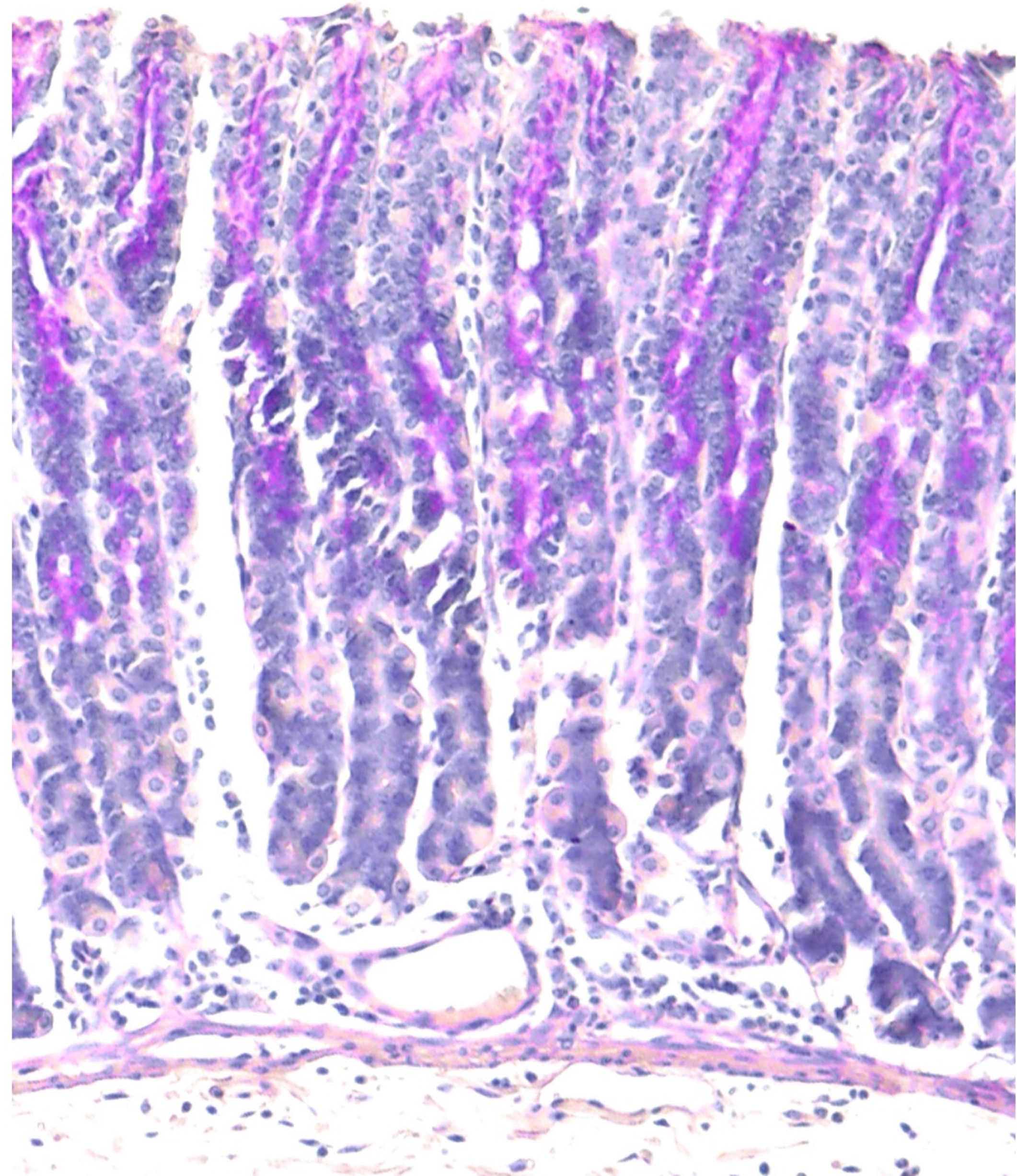
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Santa Ines (Infected lamb 1)

Ile de France (Infected lamb 19)

Santa Ines (Infected lamb 1)

Ile de France (Infected lamb 19)



B

E

H

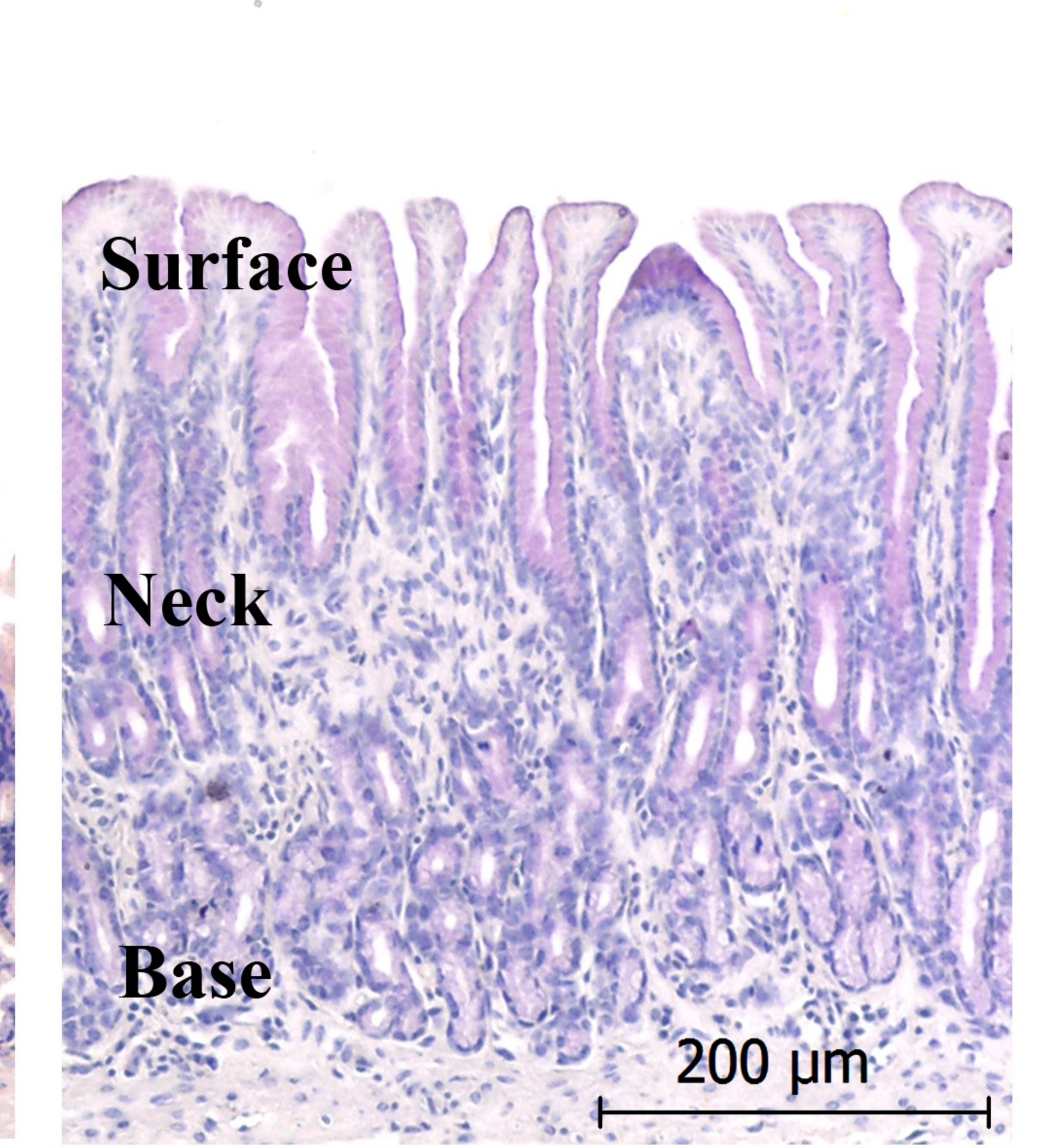
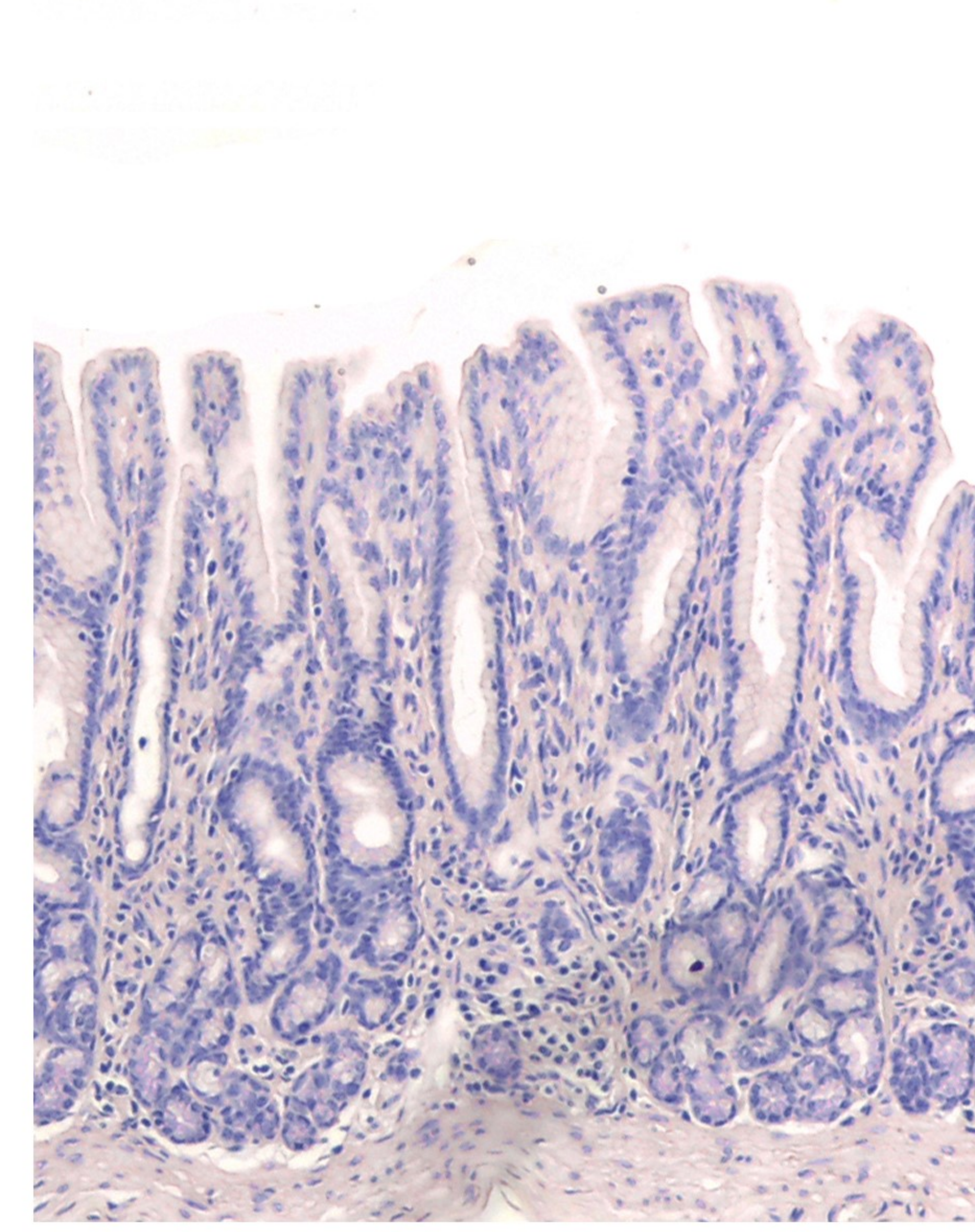
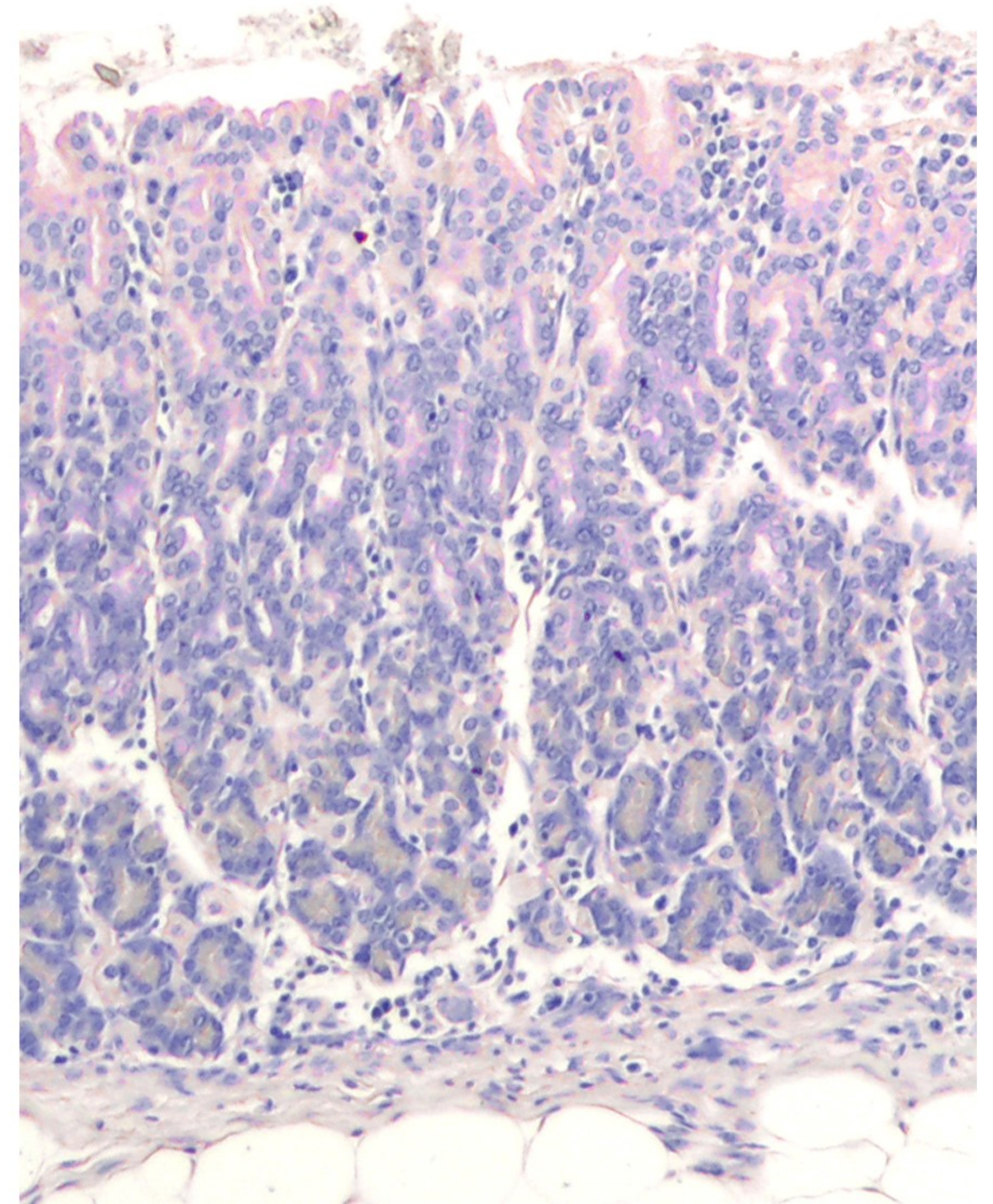
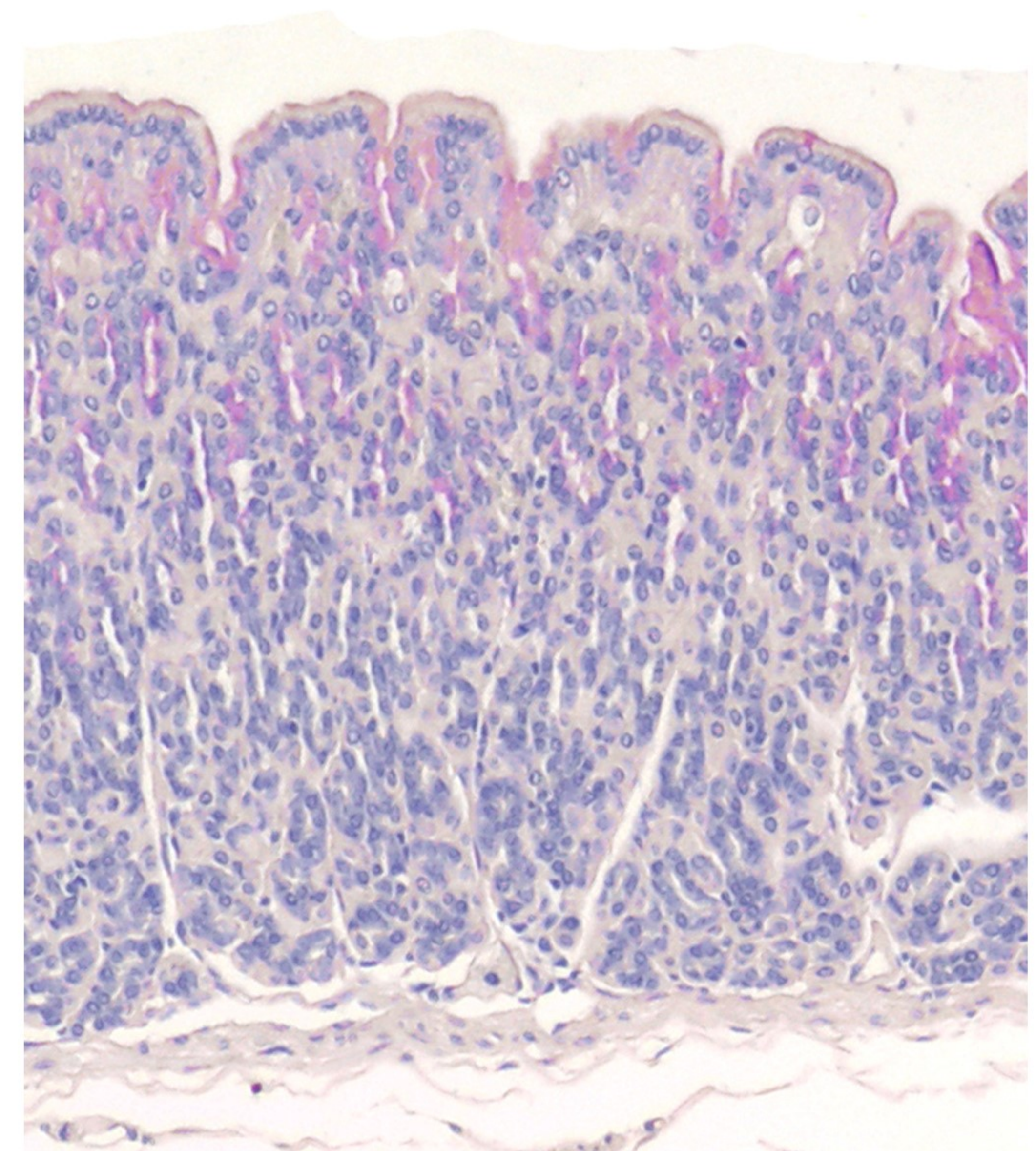
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Santa Ines (Infected lamb 7)

Ile de France (Infected lamb 21)

Santa Ines (Infected lamb 7)

Ile de France (Infected lamb 21)



C

F

I

L

Santa Ines (Control lamb 11)

Ile de France (Infected lamb 17)

Santa Ines (Control lamb 11)

Ile de France (Infected lamb 17)

Surface

Neck

Base

200 µm

Haemonchus contortus Infection

