TABLE III

Normal Guinea Pig Pancreas (Uncorrected for Systematic Errors)

Component	Parameter	Symbol	Density per 1 cm³ gland*	Density per 1 cm³ exocrine cell cytoplasm	Units	Value per average exocrine cell	Units
Animal	Weight	W_{gp}	520.00		g		
			17.61				
Pancreas	Volume	V_p	1.22		cm^3		
			0.10				
Extra-exocrinocytic spaces	Volume	V_{eexs}	0.0838		cm^3/cm^3		
			0.0095				
Extra-exocrinocytic cells	Volume	V_{eexc}	0.0956		cm^3/cm^3		
Duct cells	Volume	V_{dc}	0.0393		cm^3/cm^3		
			0.0023				
Blood vessel walls	Volume	V_{bvw}	0.0368		cm^3/cm^3		
			0.0025				
Endocrine cells	Volume	V_{enc}	0.0177		cm^3/cm^3		
			0.0049				
Interstitial cells	Volume	V_{ic}	0.0010		cm^3/cm^3		
			0.0004				
Nerve cells	Volume	V_{nc}	0.0008		cm^3/cm^3		
			0.0001				
Exocrine cells	Volume	V_{exc}	0.8207		cm^3/cm^3	1060.00	μm^3
						84.78	
Nuclei	Volume	V_n	0.0738		cm^3/cm^3	106.50	μm^3
			0.0014			*7.16*	
Cytoplasm	Volume	V_{cy}	0.7469	1.0000	cm^3/cm^3	953.60	μm^3
			0.0071			*78.73*	
Zymogen granules	Volume	V_{zg}	0.0568	0.0692	cm^3/cm^3	65.24	μm^3
			0.0048	*0.0052*		*6.01*	
	Surface	S_{zg}	2728.0	3332.5	cm^2/cm^3	317.30	μm^3
			115.0	*132.5*		*28.88*	
Condensing vacuoles	Volume	V_{cov}	0.0066	0.0080	cm^3/cm^3	7.42	μm^2
			0.0007	*0.0008*		*0.52*	
	Surface	S_{cov}	422.50	513.60	cm^2/cm^3	49.03	μm^2
			56.69	*64.36*		*8.40*	
Intracisternal granules	Volume	V_{ig}	0.0036	0.0043	cm^3/cm^3	3.64	μm^3
			0.0018	*0.0021*		*1.80*	
Mitochondria	Volume	V_{mi}	0.0724	0.0884	cm^3/cm^3	83.63	μm^3
			0.0037	*0.0044*		*6.42*	
Outer mitochondrial membrane	Surface	S_{omim}	3924.0	4803.0	cm^2/cm^3	460.50	μm^2
			173.4	*242.5*		*48.00*	
Inner mitochondrial membrane	Surface	S_{imim}	17560.0	23490.0	cm^2/cm^3	2238.0	μm^2
			702.5	*811.9*		*204.3*	
Rough-surfaced endoplasmic reticulum	Volume	V_{rer}	0.1947	0.2605	cm^3/cm^3	249.30	μm^3
			0.0080	*0.0087*		*25.08*	
	Surface	S_{rer}	62210.0	83310.0	cm^2/cm^3	8047.0	μm^2
			3312.0	*4517.0*		*974.0*	
Golgi apparatus	Surface	S_{ga}	10270.0	13770.0	cm^2/cm^3	1270.0	μm^2
			1794.0	*2424.0*		*183.9*	
Cytoplasmic matrix	Volume	V_{cyma}	0.4844	0.5697	cm^3/cm^3	544.30	μm^3
			0.0050	*0.0110*		*48.62*	

TABLE III—(*Continued*)

Component	Parameter	Symbol	Density per 1 cm³ gland*	Density per 1 cm³ exocrine cell cytoplasm	Units	Value per average exocrine cell	Units
Plasma membrane	Surface	S_{pm}	4965.00	6073.0	cm^2/cm^3	581.9	μm^2
			78.46	*145.7*		*55.6*	
Luminal plasma membrane	Surface	S_{lupm}	239.66	296.30	cm^2/cm^3	28.85	μm^2
			57.50	*74.88*		*8.40*	
Lateral plasma membrane	Surface	S_{lapm}	3333.0	4073.0	cm^2/cm^3	388.70	μm^2
			100.3	*102.9*		*33.57*	
Basal plasma membrane	Surface	S_{bapm}	1392.00	1704.0	cm^2/cm^3	164.40	μm^2
			74.56	*104.7*		*20.42*	
Plasma membrane vesicles	Surface	S_{pmv}	1866.0	2495.0	cm^2/cm^3	239.00	μm^2
			193.7	*252.2*		*33.78*	
Luminal vesicles	Surface	S_{lupmv}	272.00	361.60	cm^2/cm^3	36.33	μm^2
			70.01	*89.81*		*11.30*	
Lateral vesicles	Surface	S_{lapmv}	519.20	693.2	cm^2/cm^3	64.79	μm^2
			85.27	*111.3*		*10.81*	
Basal vesicles	Surface	S_{bapmv}	1074.0	1440.0	cm^2/cm^3	137.90	μm^2
			161.6	*220.9*		*24.58*	

Standard errors of the mean values are italicized.

* Does not apply to animal weight and pancreas volume.