

P39 Table 5-1 Blood chemistry in male microminipigs

Group	No. \ Day	ASAT (IU/L)						ALAT (IU/L)						
		-6	-4	14	28	42	49	56	-6	14	28	42	49	56
1	1	25		36	39	41		43	37	36	43	40		36
	2	30		66	100	78		48	38	44	52	52		57
	3	27		34	95	32		122	23	39	48	40		41
	4	146	81	31					44	49				
	5	30		91	28	31		33	45	54	50	45		61
	Mean	51.6		51.6	65.5	45.5		61.5	37.4	44.4	48.3	44.3		48.8
±S.D.	52.8		26.2	37.3	22.1		40.8	8.8	7.3	3.9	5.7		12.1	
2	6	22		35	31	90		28	30	30	38	45		39
	7	20		34	28	28		37	38	41	39	36		41
	8	36		36	33	87		33	48	48	42	40		40
	9	31		59	42	28		34	48	46	44	41		40
	10	20		24	67	56		18	31	34	32	29		33
	Mean	25.8		37.6	40.2	57.8		30.0	39.0	39.8	39.0*	38.2		38.6
±S.D.	7.3		12.9	15.9	30.3		7.4	8.8	7.7	4.6	6.1		3.2	
3	11	32		48	37	39		38	32	31	28	29		27
	12	24		33	48	35		28	39	41	38	35		38
	13	26		36	27	22		21	41	39	34	26		33
	14	23		53	35	32		35	41	57	34	44		50
	15	30		37	45	36		48	29	30	32	31		30
	Mean	27.0		41.4	38.4	32.8		34.0	36.4	39.6	33.2**	33.0*		35.6
±S.D.	3.9		8.6	8.4	6.5		10.2	5.5	10.9	3.6	7.0		9.0	
4	16	16		33	33	30		32	29	32	29	25		29
	17	39		32	36	38		35	36	30	26	27		32
	18	30		40	50	37		35	35	32	31	27		30
	19	32		37	36	39		30	33	33	33	32		36
	20	24		30	30	78		26	37	39	32	29		35
	Mean	28.2		34.4	37.0	44.4		31.6	34.0	33.2*	30.2**	28.0*		32.4*
±S.D.	8.7		4.0	7.7	19.1		3.8	3.2	3.4	2.8	2.6		3.0	
5	21	39		65	48	43		56	38	43	49	33		32
	22	24		213	137	382	142	125	38	82	63	113	73	76
	23	27		59	57	50		44	53	69	50	39		40
	24	24		167	222	279		55	58	70	86	75		59
	25	25		47	55	54		47	43	45	44	36		36
	Mean	27.8		110.2	103.8	161.6		65.4	46.0	61.8	58.4	59.2		48.6
±S.D.	6.4		74.9	75.4	158.5		33.7	9.1	17.0	16.9	34.6		18.5	

Notes ASAT : Aspartate aminotransferase \* P<0.05 , \*\* P<0.01 : Significantly different from control.  
 ALAT : Alanine aminotransferase

P40 Table 5-2 Blood chemistry in male microminipigs

Group	No. \ Day	ALP (IU/L)						LDH (IU/L)						
		-6	-4	14	28	42	49	56	-6	14	28	42	49	56
1	1	442		586	784	604		732	423	460	453	496		544
	2	572		687	832	935		949	480	578	630	651		552
	3	242		590	703	524		496	417	450	753	449		423
	4	272	265	482					949	514				
	5	357		426	478	486		566	483	946	443	454		475
	Mean	377.0		554.2	699.3	637.3		685.8	550.4	589.6	569.8	512.5		498.5
±S.D.	134.1		102.0	156.8	204.5		201.5	224.9	205.6	149.3	94.7		61.1	
2	6	564		616	751	761		753	426	523	521	652		480
	7	617		863	973	800		788	416	557	522	472		564
	8	546		922	967	1028		917	705	594	567	714		508
	9	356		405	700	544		593	474	613	541	483		547
	10	549		825	770	661		776	487	520	689	605		425
	Mean	526.4		726.2	832.2	758.8		765.4	501.6	561.4	568.0	585.2		504.8
±S.D.	99.4		213.4	128.4	180.2		115.6	117.7	41.6	70.2	105.7		55.4	
3	11	772		835	1075	1112		1133	380	460	455	445		419
	12	891		1356	1509	1346		1462	391	413	456	390		367
	13	364		556	573	512		493	469	520	449	392		460
	14	565		1149	794	1183		1306	510	754	573	574		668
	15	298		560	773	905		840	459	504	499	444		463
	Mean	578.0		891.2	944.8	1011.6		1046.8	441.8	530.2	486.4	449.0		475.4
±S.D.	254.9		356.3	362.5	321.0		386.2	55.0	131.9	52.4	74.8		114.5	
4	16	461		996	1120	1014		973	424	445	422	382		443
	17	740		1219	1420	1315		1276	517	441	440	454		483
	18	524		1152	1463	1429		1277	524	474	568	497		492
	19	469		675	959	926		811	461	477	502	481		460
	20	274		494	653	520		579	539	542	454	649		431
	Mean	493.6		907.2*	1123.0	1040.8		983.2	493.0	475.8	477.2	492.6		461.8
±S.D.	167.0		312.1	336.0	357.4		302.2	48.6	40.5	58.8	97.9		25.8	
5	21	486		984	1089	930		831	554	651	582	554		621
	22	398		925	1146	997	1089	1031	493	913	789	806	929	751
	23	481		989	1153	1176		1074	517	549	537	430		447
	24	543		840	1308	1121		884	575	793	866	1144		709
	25	447		1071	1258	1221		1213	515	580	656	573		599
	Mean	471.0		961.8**	1190.8**	1089.0**		1006.6*	530.8	697.2	686.0	701.4		625.4
±S.D.	53.4		85.7	89.5	122.2		153.0	33.0	153.0	138.7	282.3		117.6	

Notes ALP : Alkaline phosphatase \* P<0.05 : Significantly different from control.  
 LDH : Lactate dehydrogenase

P41 Table 5-3 Blood chemistry in male microminipigs

Group	No. \ Day	G-GTP (IU/L)					CPK (IU/L)						
		-6	14	28	42	49	56	-6	-4	14	28	42	49
1	1	48	51	39	38		43	225		392	354	699	
	2	60	48	54	50		52	392		811	518	1098	
	3	42	41	43	45		53	514		303	3112	298	
	4	59	58					4604	3437	413			
	5	55	77	44	45		53	394		3795	261	405	
	Mean		52.8	55.0	45.0	44.5	50.3	1225.8		1142.8	1061.3	625.0	
±S.D.		7.7	13.7	6.4	4.9	4.9	1891.3		1495.5	1371.3	358.0		
2	6	60	52	47	59		53	478		696	347	1913	
	7	27	37	28	28		33	230		534	284	255	
	8	74	77	58	78		80	373		363	440	2629	
	9	60	70	63	70		77	274		1625	593	285	
	10	55	52	61	80		51	309		458	2102	1317	
	Mean		55.2	57.6	51.4	63.0	58.8	332.8		735.2	753.2	1279.8	
±S.D.		17.3	15.9	14.5	21.2	19.6	96.6		512.1	762.9	1032.3		
3	11	50	53	47	47		49	250		338	314	278	
	12	38	42	44	60		44	324		368	939	269	
	13	49	68	49	47		48	458		608	341	261	
	14	71	79	57	58		65	295		1229	552	355	
	15	57	91	77	60		96	286		459	343	202	
	Mean		53.0	66.6	54.8	54.4*	60.4	322.6		600.4	497.8	273.0	
±S.D.		12.1	19.6	13.3	6.8	21.5	80.2		366.8	264.5	54.7		
4	16	46	48	51	55		55	319		317	368	346	
	17	57	52	54	57		53	655		210	216	222	
	18	53	48	86	67		55	275		238	298	203	
	19	47	45	58	61		59	221		176	212	332	
	20	43	44	47	63		46	297		301	228	2396	
	Mean		49.2	47.4	59.2	60.6*	53.6	353.4		248.4*	264.4	699.8	
±S.D.		5.7	3.1	15.5	4.8	4.8	172.5		59.8	67.6	950.3		
5	21	62	69	73	78		83	862		1257	297	244	
	22	52	59	66	63	62	73	168		335	325	500	1686
	23	59	62	70	77		76	368		377	300	244	
	24	43	57	60	82		64	367		1592	508	2773	
	25	47	74	70	72		74	304		270	285	435	
	Mean		52.6	64.2	67.8**	74.4**	74.0**	413.8		766.2	343.0	839.2	
±S.D.		8.0	7.1	5.0	7.3	6.8	263.5		613.7	93.4	1087.0		

Notes G-GTP : Gamma - glutamyl transpeptidase \* P<0.05 , \*\* P<0.01 : Significantly different from control.  
 CPK : Creatine phosphokinase

P42 Table 5-4 Blood chemistry in male microminipigs

Group	No. \ Day	Amylase (pg)					T.Bil. (g/dL)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	2736	2886	3174	2868		2580	0.04	0.01	0.02	0.01		0.01
	2	3198	2919	3384	3407		3141	0.06	0.04	0.01	0.01		0.01
	3	2380	3240	3096	2577		2462	0.00	0.05	0.00	0.01		0.01
	4	2222	2795					0.00	0.01				
	5	2908	2623	2941	2889		3105	0.02	0.10	0.04	0.02		0.02
	Mean	2688.8	2892.6	3148.8	2935.3		2822.0	0.024	0.042	0.018	0.013		0.013
	±S.D.	394.6	225.6	184.3	345.2		351.2	0.026	0.037	0.017	0.005		0.005
2	6	2913	2688	2925	3066		3135	0.02	0.02	0.02	0.01		0.02
	7	2627	2700	3142	3169		2589	0.02	0.03	0.06	0.03		0.04
	8	3146	3419	3122	3422		3121	0.06	0.08	0.03	0.06		0.04
	9	2632	2525	2666	2677		2428	0.04	0.02	0.01	0.02		0.02
	10	1990	1979	1908	1814		1923	0.02	0.03	0.02	0.01		0.01
	Mean	2661.6	2662.2	2752.6	2829.6		2639.2	0.032	0.036	0.028	0.026		0.026
	±S.D.	433.3	514.9	509.6	627.8		509.4	0.018	0.025	0.019	0.021		0.013
3	11	3199	3444	3145	3777		3431	0.02	0.13	0.01	0.04		0.01
	12	2382	2394	2364	2352		2332	0.03	0.03	0.01	0.03		0.01
	13	3181	2876	2938	2922		2688	0.02	0.01	0.01	0.01		0.01
	14	2406	2459	2267	2695		2567	0.01	0.06	0.01	0.00		0.04
	15	2255	2376	2370	2574		2353	0.04	0.06	0.06	0.04		0.05
	Mean	2684.6	2709.8	2616.8*	2864.0		2674.2	0.024	0.058	0.020	0.024		0.024
	±S.D.	465.0	458.5	396.7	550.4		448.5	0.011	0.045	0.022	0.018		0.019
4	16	2628	2680	2577	2558		2442	0.04	0.05	0.05	0.04		0.04
	17	3131	3156	3141	3155		3145	0.01	0.07	0.06	0.05		0.04
	18	2851	2898	2517	2881		2882	0.01	0.09	0.08	0.06		0.05
	19	2160	1976	2007	2043		1942	0.01	0.08	0.10	0.05		0.04
	20	2512	2373	2409	2307		2471	0.03	0.06	0.05	0.00		0.02
	Mean	2656.4	2616.6	2530.2*	2588.8		2576.4	0.020	0.070	0.068**	0.040		0.038**
	±S.D.	364.4	459.3	407.4	442.8		460.5	0.014	0.016	0.022	0.023		0.011
5	21	3800	2982	3790	3449		3131	0.00	0.03	0.05	0.02		0.01
	22	2913	2371	2140	1894	2124	2105	0.03	0.15	0.19	0.20	0.16	0.14
	23	2946	2882	2893	2564		2554	0.04	0.07	0.05	0.06		0.03
	24	2688	2449	2850	2261		2133	0.01	0.08	0.06	0.03		0.03
	25	2391	2298	2134	2206		2006	0.01	0.13	0.21	0.13		0.08
	Mean	2947.6	2596.4	2761.4	2474.8		2385.8	0.018	0.092	0.112*	0.088*		0.058
	±S.D.	525.6	313.0	682.5	594.2		466.5	0.016	0.048	0.081	0.076		0.053

Notes T.Bil. : Total bilirubin \* P<0.05 : Significantly different from control.

P43 Table 5-5 Blood chemistry in male microminipigs

Group	No. \ Day	D.Bil. (mg/dL)					T.Prot. (g/dL)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	0.03	0.01	0.01	0.01		0.01	7.9	8.0	8.2	8.2		7.4
	2	0.04	0.03	0.01	0.01		0.01	8.2	6.8	7.7	7.3		7.1
	3	0.00	0.04	0.00	0.00		0.01	7.9	7.7	7.9	7.5		7.5
	4	0.00	0.01					7.1	7.7				
	5	0.02	0.05	0.02	0.02		0.02	7.9	7.4	7.6	7.5		8.1
	Mean	0.018	0.028	0.010	0.010		0.013	7.80	7.52	7.85	7.63		7.53
	±S.D.	0.018	0.018	0.008	0.008		0.005	0.41	0.45	0.26	0.39		0.42
2	6	0.02	0.01	0.01	0.00		0.01	7.0	7.2	7.2	7.2		7.0
	7	0.02	0.02	0.03	0.02		0.02	6.9	7.2	7.4	7.2		7.2
	8	0.04	0.02	0.01	0.01		0.01	8.2	8.7	7.4	7.6		7.8
	9	0.03	0.01	0.01	0.01		0.01	7.0	7.4	7.4	7.1		7.4
	10	0.02	0.02	0.01	0.00		0.01	6.9	7.1	7.7	7.9		7.5
	Mean	0.026	0.016	0.014	0.008		0.012	7.20	7.52	7.42*	7.40		7.38
	±S.D.	0.009	0.005	0.009	0.008		0.004	0.56	0.67	0.18	0.34		0.30
3	11	0.02	0.03	0.00	0.00		0.00	7.4	8.1	8.5	8.1		8.0
	12	0.02	0.01	0.00	0.01		0.00	7.9	7.6	7.5	7.5		7.4
	13	0.02	0.00	0.00	0.00		0.00	7.2	7.7	7.5	7.2		7.2
	14	0.01	0.01	0.01	0.00		0.01	7.6	8.4	7.4	8.4		8.1
	15	0.04	0.01	0.01	0.00		0.01	7.7	7.8	8.2	8.3		7.6
	Mean	0.022	0.012	0.004	0.002		0.004*	7.56	7.92	7.82	7.90		7.66
	±S.D.	0.011	0.011	0.005	0.004		0.005	0.27	0.33	0.50	0.52		0.38
4	16	0.02	0.01	0.00	0.00		0.00	7.3	7.6	7.3	7.1		6.7
	17	0.01	0.02	0.01	0.01		0.01	7.2	7.1	7.0	6.7		6.5
	18	0.01	0.01	0.03	0.01		0.01	7.1	7.4	7.5	6.8		6.4
	19	0.01	0.02	0.02	0.01		0.00	7.3	7.2	7.4	6.9		6.7
	20	0.03	0.02	0.01	0.00		0.00	6.7	7.2	7.3	6.7		6.8
	Mean	0.016	0.016	0.014	0.006		0.004*	7.12*	7.30	7.30**	6.84**		6.62**
	±S.D.	0.009	0.005	0.011	0.005		0.005	0.25	0.20	0.19	0.17		0.16
5	21	0.00	0.00	0.05	0.00		0.00	7.6	7.6	7.4	7.1		7.3
	22	0.03	0.07	0.07	0.08	0.05	0.04	7.4	7.3	7.9	7.0	7.1	7.1
	23	0.03	0.00	0.00	0.01		0.01	7.6	8.1	7.8	7.1		6.7
	24	0.01	0.03	0.02	0.01		0.02	6.9	6.9	8.2	7.0		6.9
	25	0.01	0.01	0.00	0.01		0.01	6.6	7.3	7.4	6.9		6.4
	Mean	0.016	0.022	0.028	0.022		0.016	7.22	7.44	7.74	7.02		6.88*
	±S.D.	0.013	0.029	0.031	0.033		0.015	0.45	0.44	0.34	0.08		0.35

Notes D.Bil. : Direct bilirubin \* P<0.05 , \*\* P<0.01 : Significantly different from control.

T.Prot. : Total protein

P44 Table 5-6 Blood chemistry in male microminipigs

Group	No. \ Day	Albumin (g/dL)					T.Chol. (mg/dL)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	4.8	4.4	4.4	4.1		3.9	56	63	68	80		72
	2	4.9	4.2	4.7	4.4		4.5	60	50	60	57		62
	3	3.7	4.1	4.3	4.0		4.2	66	63	70	76		69
	4	4.8	4.9					61	71				
	5	4.6	4.2	4.3	4.0		4.5	89	73	72	77		91
	Mean	4.56	4.36	4.43	4.13		4.28	66.4	64.0	67.5	72.5		73.5
±S.D.	0.49	0.32	0.19	0.19		0.29	13.1	9.1	5.3	10.5		12.4	
2	6	4.6	4.2	4.2	4.2		3.9	55	164	128	163		134
	7	4.4	4.6	4.7	4.6		4.2	52	199	240	227		146
	8	4.9	5.0	4.2	4.3		4.3	95	396	429	502		410
	9	4.3	4.5	4.7	4.7		4.8	44	146	177	219		191
	10	4.5	4.5	4.2	4.3		4.2	60	161	124	116		126
	Mean	4.54	4.56	4.40	4.42		4.28	61.2	213.2*	219.6	245.4		201.4
±S.D.	0.23	0.29	0.27	0.22		0.33	19.8	104.0	126.1	150.3		119.3	
3	11	4.8	4.9	4.5	4.2		4.2	56	468	499	529		493
	12	4.7	4.5	4.4	4.5		4.7	73	480	594	505		501
	13	4.6	4.0	3.6	3.4		3.6	61	409	405	384		251
	14	4.8	5.3	3.7	4.0		4.2	57	560	214	435		328
	15	3.9	3.7	3.9	4.0		3.9	80	707	720	775		693
	Mean	4.56	4.48	4.02	4.02		4.12	65.4	524.8**	486.4**	525.6**		453.2**
±S.D.	0.38	0.65	0.41	0.40		0.41	10.6	115.2	191.8	150.7		171.7	
4	16	4.3	4.1	4.2	4.1		4.2	71	681	707	671		655
	17	4.4	4.3	4.3	4.1		4.1	66	758	791	760		682
	18	4.5	4.8	5.0	4.6		4.4	67	1123	759	1070		756
	19	4.0	4.0	4.2	3.8		3.8	53	595	668	673		632
	20	4.6	4.7	4.6	4.2		4.4	60	574	577	476		467
	Mean	4.36	4.38	4.46	4.16		4.18	63.4	746.2**	700.4**	730.0**		638.4**
±S.D.	0.23	0.36	0.34	0.29		0.25	7.0	223.0	83.6	216.6		106.6	
5	21	4.9	4.7	4.8	4.4		4.5	57	1712	1319	774		736
	22	4.8	4.6	4.7	4.3	4.4	4.6	49	503	374	340	412	382
	23	4.6	4.6	4.2	3.8		3.8	70	1277	794	800		771
	24	4.5	4.4	5.3	4.6		4.8	49	612	698	521		440
	25	4.3	4.2	4.4	4.2		4.1	70	1072	1378	1121		1032
	Mean	4.62	4.50	4.68	4.26		4.36	59.0	1035.2*	912.6*	711.2**		672.2**
±S.D.	0.24	0.20	0.42	0.30		0.40	10.6	495.0	427.8	297.4		265.2	

Notes T.Chol. : Total cholesterol \* P<0.05 , \*\* P<0.01 : Significantly different from control.

P45 Table 5-7 Blood chemistry in male microminipigs

Group	No. \ Day	F.Chol. (g/dL)					TGL (mg/dL)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	13	15	16	17		17	40	42	53	53		58
	2	15	12	14	14		14	41	20	30	28		30
	3	16	15	16	18		16	34	30	35	31		31
	4	15	17					46	43				
	5	21	18	17	17		21	49	22	36	42		62
	Mean		16.0	15.4	15.8	16.5	17.0	42.0	31.4	38.5	38.5		45.3
±S.D.		3.0	2.3	1.3	1.7	2.9	5.8	10.8	10.0	11.4		17.1	
2	6	13	38	29	38		31	39	31	25	27		56
	7	12	45	55	51		32	26	16	18	18		46
	8	24	93	103	124		100	67	44	38	52		93
	9	10	32	39	49		43	19	23	23	21		133
	10	14	35	27	26		28	25	29	42	28		52
	Mean		14.6	48.6*	50.6	57.6	46.8	35.2	28.6	29.2	29.2		76.0
±S.D.		5.5	25.3	31.3	38.4	30.3	19.2	10.4	10.3	13.4		36.8	
3	11	13	110	121	127		119	35	23	53	51		67
	12	17	123	158	136		134	34	40	49	19		62
	13	16	96	98	92		59	63	56	75	54		55
	14	13	133	49	104		79	39	16	27	32		67
	15	18	184	196	227		186	32	20	33	32		28
	Mean		15.4	129.2**	124.4*	137.2**	115.4*	40.6	31.0	47.4	37.6		55.8
±S.D.		2.3	33.6	56.2	53.2	49.6	12.8	16.7	18.8	14.6		16.3	
4	16	16	168	186	180		172	37	66	53	50		47
	17	15	212	235	222		184	40	29	44	43		49
	18	16	265	287	269		225	35	43	30	36		24
	19	11	150	180	186		171	35	41	44	48		49
	20	13	131	136	117		113	42	28	30	27		36
	Mean		14.2	185.2**	204.8**	194.8**	173.0**	37.8	41.4	40.2	40.8		41.0
±S.D.		2.2	53.8	57.8	56.1	40.1	3.1	15.3	10.0	9.4		10.9	
5	21	14	405	163	230		211	43	53	76	41		51
	22	12	116	97	96	112	105	25	11	15	11	14	20
	23	16	299	245	245		232	31	27	49	35		42
	24	11	142	180	130		107	27	24	59	40		72
	25	16	239	204	272		253	44	70	84	75		117
	Mean		13.8	240.2*	177.8**	194.6**	181.6**	34.0	37.0	56.6	40.4		60.4
±S.D.		2.3	118.0	54.7	76.9	70.6	8.9	23.9	27.0	22.9		36.7	

Notes F.Chol. : Free cholesterol \* P<0.05 , \*\* P<0.01 : Significantly different from control.  
 TGL : Triglyceride

P46 Table 5-8 Blood chemistry in male microminipigs

Group	No. \ Day	Glucose (mg/dL)					BUN (mg/dL)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	90	137	91	98		166	13.0	12.7	13.3	12.8		10.8
	2	92	173	91	93		88	18.1	15.2	13.8	12.8		11.8
	3	86	125	112	105		166	16.4	11.1	12.2	7.6		9.6
	4	115	141					14.6	9.1				
	5	92	69	80	107		104	15.8	14.6	14.9	13.7		12.6
	Mean	95.0	129.0	93.5	100.8		131.0	15.58	12.54	13.55	11.73		11.20
±S.D.	11.4	37.9	13.4	6.4		40.9	1.92	2.51	1.12	2.78		1.30	
2	6	90	105	125	143		90	18.2	13.2	12.5	11.5		9.8
	7	88	113	106	91		145	18.2	9.4	7.9	7.2		8.6
	8	84	83	210	137		90	19.6	10.5	9.8	9.6		9.6
	9	122	98	179	99		108	14.3	11.0	8.0	6.4		9.3
	10	97	105	157	122		94	14.6	8.8	9.5	8.6		9.7
	Mean	96.2	100.8	155.4*	118.4		105.4	16.98	10.58	9.54**	8.66		9.4*
±S.D.	15.2	11.3	41.5	22.9		23.3	2.38	1.70	1.86	2.01		0.48	
3	11	82	67	136	89		94	15.5	12.1	9.1	8.7		7.9
	12	87	176	173	138		88	21.2	11.4	8.7	6.6		7.9
	13	87	86	97	103		107	15.6	9.4	10.6	8.7		8.5
	14	129	94	211	135		110	14.5	7.4	6.3	7.6		6.9
	15	123	128	112	119		134	12.5	9.1	8.5	7.3		5.9
	Mean	101.6	110.2	145.8	116.8		106.6	15.86	9.88	8.64**	7.78*		7.42**
±S.D.	22.5	42.9	46.4	20.9		17.8	3.23	1.89	1.55	0.91		1.03	
4	16	78	97	95	94		114	17.6	8.8	6.2	4.3		3.6
	17	105	101	147	98		102	19.1	12.6	11.4	11.6		10.0
	18	93	110	138	131		87	15.0	10.7	9.9	8.2		7.5
	19	83	86	87	83		75	13.3	8.2	8.8	8.1		7.8
	20	87	95	99	172		82	17.5	9.1	8.3	7.7		6.0
	Mean	89.2	97.8	113.2	115.6		92.0	16.50	9.88	8.92**	7.98		6.98*
±S.D.	10.4	8.8	27.3	36.3		15.8	2.32	1.78	1.93	2.59		2.37	
5	21	95	158	85	110		101	13.5	10.3	9.5	8.5		8.8
	22	78	147	70	124	78	72	15.4	11.6	8.6	9.1	5.1	5.2
	23	128	95	81	121		111	13.7	9.4	9.6	7.6		7.3
	24	107	191	88	218		105	16.7	13.7	12.7	11.4		8.5
	25	148	119	130	116		96	14.5	10.3	10.4	9.4		8.4
	Mean	111.2	142.0	90.8	137.8		97.0	14.76	11.06	10.16**	9.20		7.64**
±S.D.	27.5	36.8	22.9	45.1		15.0	1.32	1.67	1.56	1.41		1.48	

Notes BUN : Blood urea nitrogen \* P<0.05 , \*\* P<0.01 : Significantly different from control.



P47 Table 5-9 Blood chemistry in male microminipigs

Group	No. \ Day	Creat. (mg/dL)					IP (mg/dL)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	1.04	1.06	1.14	1.22		1.26	7.12	6.75	7.08	6.71		6.74
	2	0.76	0.81	0.68	0.71		0.70	5.85	6.62	6.29	5.96		5.75
	3	0.53	0.64	0.62	0.48		0.60	5.75	6.76	6.92	6.69		6.45
	4	0.91	0.85					7.24	8.84				
	5	0.85	0.75	0.82	0.80		0.81	6.39	6.48	6.14	6.43		6.50
	Mean	0.818	0.822	0.815	0.803		0.843	6.470	7.090	6.608	6.448		6.360
	±S.D.	0.190	0.155	0.232	0.309		0.291	0.694	0.985	0.462	0.349		0.426
2	6	0.81	0.81	0.91	0.89		0.88	6.86	6.27	6.25	6.59		7.12
	7	0.66	0.59	0.58	0.57		0.65	5.88	5.96	6.55	6.56		6.76
	8	0.94	0.77	0.81	0.85		0.87	7.30	7.55	7.96	7.92		8.02
	9	0.81	0.74	0.79	0.72		0.75	6.40	6.99	7.69	7.49		7.45
	10	0.74	0.78	0.70	0.62		0.65	5.60	6.16	6.74	6.91		6.94
	Mean	0.792	0.738	0.758	0.730		0.760	6.408	6.586	7.038	7.094		7.258*
	±S.D.	0.103	0.086	0.124	0.139		0.113	0.695	0.664	0.745	0.594		0.496
3	11	0.83	0.86	0.96	0.99		0.97	6.27	7.51	6.59	6.60		6.96
	12	0.80	0.82	0.82	0.71		0.69	5.95	5.45	6.34	6.15		6.51
	13	1.00	0.85	1.05	0.95		0.92	6.50	7.75	7.17	6.77		7.36
	14	1.11	0.89	0.95	1.04		0.95	6.74	7.28	8.55	7.74		7.66
	15	0.69	0.70	0.75	0.72		0.66	5.76	7.08	6.74	6.74		7.17
	Mean	0.886	0.824	0.906	0.882		0.838	6.244	7.014	7.078	6.800		7.132*
	±S.D.	0.167	0.074	0.120	0.156		0.150	0.398	0.910	0.876	0.581		0.433
4	16	1.08	0.76	0.70	0.67		0.72	6.28	6.82	6.58	6.41		6.96
	17	0.89	0.76	0.80	0.85		0.84	6.49	6.13	6.88	6.54		6.72
	18	0.72	0.69	0.70	0.77		0.75	6.21	6.10	7.56	6.66		7.31
	19	0.75	0.55	0.62	0.69		0.76	5.73	5.83	6.37	6.25		6.66
	20	0.82	0.79	0.76	0.76		0.73	5.59	6.16	6.46	6.16		6.75
	Mean	0.852	0.710	0.716	0.748		0.760	6.060	6.208	6.770	6.404		6.880
	±S.D.	0.143	0.097	0.068	0.072		0.047	0.383	0.367	0.482	0.205		0.266
5	21	0.90	0.76	0.79	0.84		0.88	6.62	7.56	7.69	7.64		8.16
	22	0.74	0.55	0.36	0.31	0.36	0.32	6.79	7.67	6.13	5.77	6.03	6.36
	23	0.88	0.62	0.68	0.65		0.66	6.62	6.35	6.88	6.49		7.61
	24	0.90	0.80	0.80	0.90		0.74	5.67	7.70	6.92	8.27		8.27
	25	0.69	0.50	0.52	0.55		0.56	5.74	5.74	5.56	5.60		6.45
	Mean	0.822	0.646	0.630	0.650		0.632	6.288	7.004	6.636	6.754		7.370
	±S.D.	0.100	0.130	0.188	0.237		0.210	0.537	0.903	0.816	1.168		0.916

Notes Creat. : Creatinine \* P<0.05 : Significantly different from control.  
 IP : Inorganic phosphorus

P48 Table 5-10 Blood chemistry in male microminipigs

Group	No. \ Day	Ca (mg/dL)					Na (mEq/dL)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	11.3	10.2	10.5	10.2		9.7	145	138	141	142		136
	2	11.0	9.7	10.3	10.1		10.0	145	141	145	142		142
	3	10.0	9.8	10.1	9.6		9.5	142	138	142	142		139
	4	10.7	11.0					144	147				
	5	11.3	10.1	10.5	10.3		10.4	145	140	144	142		142
	Mean	10.86	10.16	10.35	10.05		9.90	144.2	140.8	143.0	142.0		139.8
	±S.D.	0.54	0.51	0.19	0.31		0.39	1.3	3.7	1.8	0.0		2.9
2	6	10.9	9.9	10.1	9.8		10.3	142	142	143	142		142
	7	11.0	10.1	10.6	10.7		10.2	143	139	144	144		142
	8	11.3	11.6	10.8	10.7		11.1	144	146	142	143		146
	9	10.0	10.3	10.6	10.8		10.8	140	143	144	149		146
	10	10.1	10.3	10.2	10.2		10.8	138	142	142	139		143
	Mean	10.66	10.44	10.46	10.44		10.64*	141.4	142.4	143.0	143.4		143.80*
	±S.D.	0.58	0.67	0.30	0.43		0.38	2.4	2.5	1.0	3.6		2.0
3	11	11.0	10.1	10.8	10.3		10.7	141	137	142	140		140
	12	11.3	10.3	10.7	10.1		10.8	145	138	140	141		144
	13	11.3	10.9	10.9	10.3		11.1	144	143	145	140		147
	14	10.9	11.5	10.9	10.9		11.0	145	145	145	147		150
	15	10.5	10.0	10.1	10.3		9.8	138	137	138	139		134
	Mean	11.00	10.56	10.68	10.38		10.68*	142.6	140.0	142.0	141.4		143.0
	±S.D.	0.33	0.63	0.33	0.30		0.52	3.0	3.7	3.1	3.2		6.2
4	16	10.4	10.3	10.2	10.0		10.2	142	137	135	134		136
	17	10.4	10.1	10.5	10.2		10.2	143	138	139	141		142
	18	10.7	10.6	10.8	10.6		10.7	143	139	142	143		144
	19	10.3	10.3	10.4	10.4		10.3	141	137	140	139		141
	20	10.4	10.7	10.6	10.1		10.9	139	142	143	138		143
	Mean	10.44	10.40	10.50	10.26		10.46*	141.60*	138.6	139.8	139.0		141.2
	±S.D.	0.15	0.24	0.22	0.24		0.32	1.7	2.1	3.1	3.4		3.1
5	21	10.8	10.9	11.2	10.7		11.3	142	138	142	142		143
	22	10.7	10.1	10.3	9.7	10.6	10.0	143	136	125	118	126	126
	23	10.6	10.8	11.2	10.3		10.7	141	138	142	137		138
	24	10.5	10.1	11.5	10.0		10.6	145	139	148	143		142
	25	10.2	9.9	10.2	10.0		10.6	138	137	139	138		141
	Mean	10.56	10.36	10.88	10.14		10.64*	141.8	137.6	139.2	135.6		138.0
	±S.D.	0.23	0.46	0.59	0.38		0.46	2.6	1.1	8.6	10.2		7.0

Notes Ca : Calcium \* P<0.05 : Significantly different from control.  
 Na : Sodium

P49 Table 5-11 Blood chemistry in male microminipigs

Group	No. \ Day	K (mEq/dL)					Cl (mEq/dL)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	5.5	4.5	4.6	4.6		5.2	103	102	103	103		101
	2	5.4	4.2	4.9	3.9		3.6	104	103	106	105		102
	3	5.6	4.1	5.0	4.2		4.2	104	99	102	104		101
	4	5.6	6.1					103	102				
	5	6.2	4.5	4.1	5.9		5.0	103	100	104	104		101
	Mean		5.66	4.68	4.65	4.65	4.50	103.4	101.2	103.8	104.0		101.3
	±S.D.	0.31	0.81	0.40	0.88	0.74	0.5	1.6	1.7	0.8		0.5	
2	6	6.3	4.0	3.9	4.8		4.6	105	104	105	106		103
	7	6.5	4.5	5.3	5.3		5.1	106	100	104	101		102
	8	7.0	6.4	6.0	5.5		6.7	104	104	105	101		101
	9	5.0	5.1	4.6	4.7		5.8	103	101	103	103		100
	10	4.7	4.7	5.6	5.9		4.8	105	100	105	104		100
	Mean		5.90	4.94	5.08	5.24	5.40	104.6	101.8	104.4	103.0		101.2
	±S.D.	1.00	0.91	0.83	0.50	0.86	1.1	2.0	0.9	2.1		1.3	
3	11	5.7	4.2	5.2	4.2		4.7	102	99	99	100		100
	12	6.1	4.3	5.1	4.7		5.4	108	103	104	106		103
	13	6.5	6.2	5.2	4.4		5.4	103	102	103	102		103
	14	6.0	6.3	5.3	5.2		5.7	108	103	101	101		102
	15	5.7	4.9	4.4	4.6		4.6	100	100	100	97		96
	Mean		6.00	5.18	5.04	4.62	5.16	104.2	101.4	101.4	101.2		100.8
	±S.D.	0.33	1.01	0.36	0.38	0.48	3.6	1.8	2.1	3.3		2.9	
4	16	5.4	4.9	4.2	4.6		4.3	103	100	96	94		95
	17	6.5	4.7	5.9	5.7		5.8	106	102	102	101		99
	18	6.5	4.8	6.8	5.2		5.2	104	98	104	99		101
	19	4.8	3.7	3.8	4.3		4.4	102	100	102	99		100
	20	4.4	4.9	4.8	5.2		5.4	104	101	102	101		101
	Mean		5.52	4.60	5.10	4.16	5.02	103.8	100.2	101.2	98.8*		99.2
	±S.D.	0.96	0.51	1.24	0.29	0.65	1.5	1.5	3.0	2.9		2.5	
5	21	5.9	6.4	6.6	5.5		6.0	101	96	99	99		98
	22	5.4	4.3	5.3	3.7	4.9	3.8	102	98	85	81	89	87
	23	5.8	5.5	7.0	5.3		6.4	102	96	101	101		100
	24	5.0	5.6	6.0	5.7		5.9	104	102	103	99		102
	25	4.7	4.5	4.7	4.6		6.1	104	101	99	98		97
	Mean		5.36	5.26	5.92*	4.96	5.64	102.6	98.6	97.4	95.6		96.8
	±S.D.	0.51	0.86	0.94	0.82	1.05	1.3	2.8	7.1	8.2		5.8	

Notes K : Potassium \* P<0.05 : Significantly different from control.  
 Cl : Chloride

P50 Table 5-12 Blood chemistry in male microminipigs

Group	No. \ Day	HDL-Cho (%)					HDL-Cho (mg/dL)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	51	46	51	39		39	29	29	35	31		28
	2	51	47	52	45		45	31	24	31	26		28
	3	41	44	49	39		50	27	28	34	30		34
	4	48	41					29	29				
	5	37	30	33	34		34	33	22	24	26		31
	Mean		45.6	41.6	46.3	39.3	42.0	29.8	26.4	31.0	28.3		30.3
±S.D.		6.3	6.9	8.9	4.5	7.0	2.3	3.2	5.0	2.6		2.9	
2	6	44	36	42	40		44	24	59	54	65		59
	7	39	33	31	34		50	20	66	74	77		73
	8	30	24	18	16		21	28	95	77	80		86
	9	42	45	42	30		41	18	66	74	66		78
	10	46	49	54	53		49	28	79	67	61		62
	Mean		40.2	37.4	37.4	34.6	41.0	23.6*	73.0**	69.2**	69.8**		71.6**
±S.D.		6.3	9.9	13.6	13.6	11.8	4.6	14.3	9.3	8.2		11.2	
3	11	47	17	21	20		17	26	80	105	106		84
	12	37	25	28	33		33	27	120	166	167		165
	13	32	15	18	16		24	20	61	73	61		60
	14	45	22	25	21		33	26	123	54	91		108
	15	38	7	8	9		13	30	49	58	70		90
	Mean		39.8	17.2**	20.0**	19.8**	24.0*	25.8	86.6*	91.2*	99.0*		101.4*
±S.D.		6.1	6.9	7.7	8.8	9.1	3.6	33.7	46.4	41.9		39.5	
4	16	41	14	25	28		27	29	95	177	188		177
	17	36	10	15	16		21	24	76	119	122		143
	18	43	6	14	16		21	29	67	106	171		159
	19	40	20	27	26		26	21	119	180	175		164
	20	38	15	18	22		25	23	86	104	105		117
	Mean		39.6	13.0**	19.8**	21.6**	24.0**	25.2*	88.6**	137.2**	152.2**		152.0**
±S.D.		2.7	5.3	5.9	5.5	2.8	3.6	20.0	38.2	36.4		23.0	
5	21	52	5	12	23		22	30	86	158	178		162
	22	51	29	57	73	53	66	25	146	213	248	218	252
	23	35	7	19	17		20	24	89	151	136		154
	24	44	19	27	28		31	22	116	188	146		136
	25	42	15	23	24		20	29	161	317	269		206
	Mean		44.8	15.0**	27.6	33.0	31.8	31.8	26.0	119.6**	205.4**	195.4**	
±S.D.		7.0	9.7	17.3	22.7	19.7	19.7	3.4	33.5	67.1	60.1		46.8

Notes HDL-Cho(%) : High density lipoprotein-Cholesterol ra\* P<0.05 , \*\* P<0.01 : Significantly different from control.

HDL-Cho : High density lipoprotein-Cholesterol

P51 Table 5-13 Blood chemistry in male microminipigs

Group	No. \ Day	LDL-Cho (%)					LDL-Cho (mg/dL)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	42	46	44	50		50	24	29	30	40		36
	2	45	39	39	44		44	27	20	23	25		27
	3	56	47	40	50		40	37	30	28	38		28
	4	45	52					27	37				
	5	58	66	60	61		63	52	48	43	47		57
	Mean	49.2	50.0	45.8	51.3		49.3	33.4	32.8	31.0	37.5		37.0
±S.D.	7.3	10.1	9.7	7.1		10.0	11.5	10.4	8.5	9.2		13.9	
2	6	49	59	53	56		53	27	97	68	91		71
	7	52	61	65	61		48	27	121	156	138		70
	8	61	74	77	81		75	58	293	330	407		308
	9	53	51	54	64		51	23	74	96	140		97
	10	50	48	42	38		41	30	77	52	44		52
	Mean	53.0	58.6	58.2	60.0		53.6	33.0	132.4	140.4	164.0		119.6
±S.D.	4.7	10.2	13.3	15.5		12.8	14.2	91.7	113.2	141.4		106.5	
3	11	46	80	74	71		76	26	374	369	376		375
	12	57	71	68	64		64	42	341	404	323		321
	13	56	82	79	81		72	34	335	320	311		181
	14	48	76	70	74		61	27	426	150	322		200
	15	58	86	87	84		85	46	608	626	651		589
	Mean	53.0	79.0**	75.6**	74.8**		71.6*	35.0	416.8**	373.8*	396.6**		333.2*
±S.D.	5.6	5.7	7.6	8.0		9.6	8.9	112.8	171.4	144.4		164.5	
4	16	53	79	68	64		63	38	538	481	429		413
	17	56	85	79	78		68	37	644	625	593		464
	18	51	89	81	79		71	34	999	615	845		537
	19	54	76	68	68		68	29	452	454	458		430
	20	57	80	77	74		70	34	459	444	352		327
	Mean	54.2	81.8**	74.6**	72.6**		68.0*	34.4	618.4**	523.8**	535.4**		434.2**
±S.D.	2.4	5.2	6.2	6.5		3.1	3.5	226.4	88.9	193.7		76.5	
5	21	41	86	82	70		71	23	1472	1082	542		523
	22	45	63	36	23	38	30	22	317	135	78	157	115
	23	60	83	72	72		70	42	1060	572	576		540
	24	49	74	58	63		61	24	453	405	328		268
	25	51	76	68	61		70	36	815	937	684		722
	Mean	49.2	76.4**	63.2	57.8		60.4	29.4	823.4*	626.2*	441.6*		433.6*
±S.D.	7.2	9.0	17.5	20.0		17.5	9.0	466.5	386.5	240.8		240.5	

Notes LDL-Cho(%) : Low density lipoprotein-Cholesterol rat.\* P<0.05 , \*\* P<0.01 : Significantly different from control.  
 LDL-Cho : Low density lipoprotein-Cholesterol

P52 Table 5-14 Blood chemistry in male microminipigs

Group	No. \ Day	VLDL-Cho (%)					VLDL-Cho (mg/dL)					
		-6	14	28	42	49	56	-6	14	28	42	49
1	1	6	5	4	7	7	3	3	3	6		5
	2	3	8	7	8	7	2	4	4	5		4
	3	3	5	8	8	8	2	3	6	6		6
	4	6	6				4	4				
	5	4	3	5	4	3	4	2	4	3		3
	Mean	4.4	5.4	6.0	6.8	6.3	3.0	3.2	4.3	5.0		4.5
±S.D.	1.5	1.8	1.8	1.9	2.2	1.0	0.8	1.3	1.4		1.3	
2	6	5	4	3	3	3	3	7	4	5		4
	7	7	5	3	4	2	4	10	7	9		3
	8	8	2	4	3	3	8	8	17	15		12
	9	3	3	3	4	5	1	4	5	9		10
	10	3	2	3	5	6	2	3	4	6		8
	Mean	5.2	3.2	3.2	3.8*	3.8	3.6	6.4	7.4	8.8		7.4
±S.D.	2.3	1.3	0.4	0.8	1.6	2.7	2.9	5.5	3.9		3.8	
3	11	5	2	3	4	4	3	9	15	21		20
	12	6	2	3	2	2	4	10	18	10		10
	13	9	2	2	2	3	5	8	8	8		8
	14	6	1	5	4	4	3	6	11	17		13
	15	3	3	2	2	1	2	21	14	16		7
	Mean	5.8	2.0**	3.0*	2.8**	2.8*	3.4	10.8*	13.2**	14.4*		11.6*
±S.D.	2.2	0.7	1.2	1.1	1.3	1.1	5.9	3.8	5.3		5.2	
4	16	6	4	4	6	7	4	27	28	40		46
	17	7	1	3	3	7	5	8	24	23		48
	18	5	1	2	3	5	3	11	15	32		38
	19	5	2	3	4	4	3	12	20	27		25
	20	4	3	3	2	2	2	17	17	10		9
	Mean	5.4	2.2*	3.0*	3.6*	5.0	3.4	15.0*	20.8**	26.4*		33.2*
±S.D.	1.1	1.3	0.7	1.5	2.1	1.1	7.4	5.3	11.1		16.3	
5	21	7	2	2	4	4	4	34	26	31		29
	22	3	3	5	4	5	1	15	19	14	21	8
	23	5	2	4	7	6	4	26	32	56		46
	24	5	2	7	4	4	2	12	49	21		18
	25	6	1	4	5	4	4	11	55	56		41
	Mean	5.2	2.0**	4.4	4.8	4.0	3.0	19.6*	36.2**	35.6*		28.4*
±S.D.	1.5	0.7	1.8	1.3	1.4	1.4	10.0	15.3	19.6		15.8	

Notes VLDL-Cho(%): Very low density lipoprotein-Cholesterol ratio \* P<0.05 , \*\* P<0.01 : Significantly different from control.  
VLDL-Cho : Very low density lipoprotein-Cholesterol

P53 Table 5-15 Blood chemistry in male microminipigs

Group	No. \ Day	CM-Cho (%)					CM-Cho (mg/dL)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	1	3	1	4		4	1	2	1	3		3
	2	1	6	2	3		4	1	3	1	2		2
	3	0	4	3	3		2	0	3	2	2		1
	4	1	1					1	1				
	5	1	1	2	1		0	1	1	1	1		0
	Mean	0.8	3.0	2.0	2.8		2.5	0.8	2.0	1.3	2.0		1.5
±S.D.	0.4	2.1	0.8	1.3		1.9	0.4	1.0	0.5	0.8		1.3	
2	6	2	1	2	1		0	1	2	3	2		0
	7	2	1	1	1		0	1	2	2	2		0
	8	1	0	1	0		1	1	0	4	0		4
	9	2	1	1	2		3	1	1	2	4		6
	10	1	1	1	4		4	1	2	1	5		5
	Mean	1.6*	0.8	1.2	1.6		1.6	1.0	1.4	2.4	2.6		3.0
±S.D.	0.5	0.4	0.4	1.5		1.8	0.0	0.9	1.1	1.9		2.8	
3	11	2	1	2	5		3	1	5	10	26		15
	12	0	2	1	1		1	0	10	6	5		5
	13	3	1	1	1		1	2	4	4	4		3
	14	1	1	0	1		2	1	6	0	4		7
	15	1	4	3	5		1	1	28	22	39		7
	Mean	1.4	1.8	1.4	2.6		1.6	1.0	10.6	8.4	15.6		7.4*
±S.D.	1.1	1.3	1.1	2.2		0.9	0.7	10.0	8.4	16.1		4.6	
4	16	0	3	3	2		3	0	20	21	13		20
	17	1	4	3	3		4	1	30	24	23		27
	18	1	4	3	2		3	1	45	23	21		23
	19	1	2	2	2		2	1	12	13	13		13
	20	1	2	2	2		3	1	11	12	10		14
	Mean	0.8	3.0	2.6	2.2		3.0	0.8	23.6*	18.6**	16.0**		19.4**
±S.D.	0.4	1.0	0.5	0.4		0.7	0.4	14.2	5.7	5.7		5.9	
5	21	0	7	4	3		3	0	120	53	23		22
	22	1	5	2	0	4	2	0	25	7	0	16	8
	23	0	8	5	4		4	0	102	40	32		31
	24	2	5	8	5		4	1	31	56	26		18
	25	1	8	5	10		6	1	86	69	112		62
	Mean	0.8	6.6*	4.8*	4.4		3.8	0.4	72.8*	45.0*	38.6		28.2*
±S.D.	0.8	1.5	2.2	3.6		1.5	0.5	42.7	23.6	42.8		20.6	

Notes CM-Cho (%) : Chylomicron-Cholesterol ratio \* P<0.05 , \*\* P<0.01 : Significantly different from control.  
 CM-Cho : Chylomicron-Cholesterol

P54 Table 5-16 Blood chemistry in male microminipigs

Group	No. \ Day	TGL (mg/dL)					HDL-TGL (%)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	40	42	53	53		58	11	8	8	12		3
	2	41	20	30	28		30	20	5	11	14		12
	3	34	30	35	31		31	14	6	7	14		6
	4	46	43					13	21				
	5	49	22	36	42		62	20	31	31	25		14
	Mean		42.0	31.4	38.5	38.5	45.3	15.6	14.2	14.3	16.3		8.8
±S.D.		5.8	10.8	10.0	11.4	17.1	4.2	11.4	11.3	5.9		5.1	
2	6	39	31	25	27		56	36	32	13	36		9
	7	26	16	18	18		46	22	34	19	31		22
	8	67	44	38	52		93	14	18	10	16		23
	9	19	23	23	21		133	20	20	14	13		12
	10	25	29	42	28		52	11	25	14	27		9
	Mean		35.2	28.6	29.2	29.2	76.0	20.6	25.8	14.0	24.6		15.0
±S.D.		19.2	10.4	10.3	13.4	36.8	9.7	7.1	3.2	9.8		7.0	
3	11	35	23	53	51		67	12	29	15	18		24
	12	34	40	49	19		62	19	19	14	24		18
	13	63	56	75	54		55	18	16	9	11		16
	14	39	16	27	32		67	30	24	12	17		17
	15	32	20	33	32		28	23	3	17	17		13
	Mean		40.6	31.0	47.4	37.6	55.8	20.4	18.2	13.4	17.4		17.6*
±S.D.		12.8	16.7	18.8	14.6	16.3	6.7	9.8	3.0	4.6		4.0	
4	16	37	66	53	50		47	25	12	14	17		17
	17	40	29	44	43		49	21	4	12	10		15
	18	35	43	30	36		24	16	13	11	12		16
	19	35	41	44	48		49	13	8	7	17		20
	20	42	28	30	27		36	13	17	12	11		14
	Mean		37.8	41.4	40.2	40.8	41.0	17.6	10.8	11.2	13.4		16.4*
±S.D.		3.1	15.3	10.0	9.4	10.9	5.3	5.0	2.6	3.4		2.3	
5	21	43	53	76	41		51	15	28	16	26		23
	22	25	11	15	11	14	20	14	28	21	45	25	40
	23	31	27	49	35		42	18	18	24	9		7
	24	27	24	59	40		72	14	25	26	12		7
	25	44	70	84	75		117	10	30	29	12		9
	Mean		34.0	37.0	56.6	40.4	60.4	14.2	25.8	23.2	20.8		17.2
±S.D.		8.9	23.9	27.0	22.9	36.7	2.9	4.7	5.0	15.1		14.4	

Notes TGL : Triglyceride

HDL-TGL(%) : High density lipoprotein-Triglycerides ratio \* P<0.05 : Significantly different from control.



P55 Table 5-17 Blood chemistry in male microminipigs

Group	No. \ Day	HDL-TGL (mg/dL)					LDL-TGL (%)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	4	3	4	6		2	26	26	28	30		23
	2	8	1	3	4		4	23	32	31	39		44
	3	5	2	2	4		2	28	36	36	41		42
	4	6	9					26	23				
	5	10	7	11	10		9	16	30	25	39		27
	Mean	6.6	4.4	5.0	6.0		4.3	23.8	29.4	30.0	37.3		34.0
±S.D.	2.4	3.4	4.1	2.8		3.3	4.7	5.1	4.7	4.9		10.6	
2	6	14	10	3	10		5	21	26	46	45		26
	7	6	5	3	6		10	30	30	27	32		40
	8	9	8	4	8		21	20	45	47	48		46
	9	4	5	3	3		16	33	43	44	59		36
	10	3	7	6	8		5	33	33	35	37		58
	Mean	7.2	7.0	3.8	7.0		11.4	27.4	35.4	39.8	44.2		41.2
±S.D.	4.4	2.1	1.3	2.6		7.0	6.4	8.3	8.6	10.4		11.9	
3	11	4	7	8	9		16	24	48	53	53		40
	12	6	8	7	5		11	25	47	53	57		45
	13	11	9	7	6		9	22	52	51	49		37
	14	12	4	3	5		11	17	57	47	51		43
	15	7	1	6	5		4	15	63	50	56		65
	Mean	8.0	5.8	6.2	6.0		10.2	20.6	53.4**	50.8**	53.2**		46.0
±S.D.	3.4	3.3	1.9	1.7		4.3	4.4	6.7	2.5	3.3		11.0	
4	16	9	8	7	8		8	18	56	56	58		42
	17	8	1	5	4		7	20	70	72	67		44
	18	6	6	3	4		4	23	58	73	66		55
	19	5	3	3	8		10	31	61	64	55		40
	20	5	5	4	3		5	22	60	47	55		45
	Mean	6.6	4.6	4.4	5.4		6.8	22.8	61.0**	62.4**	60.2**		45.2
±S.D.	1.8	2.7	1.7	2.4		2.4	5.0	5.4	11.0	5.9		5.8	
5	21	6	15	12	11		12	15	39	53	53		50
	22	4	3	3	5	4	8	35	40	56	39	56	31
	23	6	5	12	3		3	31	47	43	63		66
	24	4	6	15	5		5	27	42	47	64		48
	25	4	21	24	9		11	22	45	54	66		61
	Mean	4.8	10.0	13.2	6.6		7.8	26.0	42.6**	50.6**	57.0*		51.2
±S.D.	1.1	7.7	7.5	3.3		3.8	7.8	3.4	5.4	11.2		13.6	

Notes HDL-TGL : High density lipoprotein-Triglycerides

LDL-TGL(%) : Low density lipoprotein-Triglycerides ratio

\* P<0.05 , \*\* P<0.01 : Significantly different from control.

P56 Table 5-18 Blood chemistry in male microminipigs

Group	No. \ Day	LDL-TGL (mg/dL)					VLDL-TGL (%)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	10	11	15	16		13	55	62	55	51		65
	2	9	6	9	11		13	53	55	48	34		21
	3	10	11	13	13		13	51	49	47	38		38
	4	12	10					54	51				
	5	8	7	9	16		17	56	27	35	23		51
	Mean		9.8	9.0	11.5	14.0	14.0	53.8	48.8	46.3	36.5		43.8
	±S.D.	1.5	2.3	3.0	2.4	2.0	1.9	13.2	8.3	11.6		18.8	
2	6	8	8	12	12		15	36	22	22	14		33
	7	8	5	5	6		18	39	24	33	20		23
	8	13	20	18	25		43	61	23	27	30		19
	9	6	10	10	12		48	44	22	23	20		24
	10	8	10	15	10		30	49	27	32	27		20
	Mean		8.6	10.6	12.0	13.0	30.8	45.8	23.6*	27.4**	22.2*		23.8
	±S.D.	2.6	5.6	4.9	7.1	14.7	9.8	2.1	5.0	6.3		5.5	
3	11	8	11	28	27		27	54	12	17	15		17
	12	8	19	26	11		28	51	18	15	14		12
	13	14	29	38	26		20	51	17	27	25		23
	14	7	9	13	16		29	47	7	30	25		19
	15	5	13	16	18		18	60	8	19	22		17
	Mean		8.4	16.2	24.2*	19.6	24.4**	52.6	12.4**	21.6**	20.2*		17.6
	±S.D.	3.4	8.1	10.0	6.8	5.0	4.8	5.0	6.5	5.4		4.0	
4	16	7	37	30	29		20	53	16	21	17		23
	17	8	20	32	29		22	50	0	10	11		22
	18	8	25	22	24		13	55	9	9	10		13
	19	11	25	28	26		20	48	8	13	15		19
	20	9	17	14	15		16	60	8	30	19		18
	Mean		8.6	24.8*	25.2*	24.6*	18.2	53.2	8.2**	16.6**	14.4**		19.0
	±S.D.	1.5	7.6	7.3	5.8	3.6	4.7	5.7	8.8	3.8		3.9	
5	21	6	21	40	22		26	65	11	22	16		16
	22	9	4	8	4	8	6	45	16	11	11	9	10
	23	10	13	21	22		28	46	21	12	20		11
	24	7	10	28	26		35	49	17	17	9		6
	25	10	32	45	50		71	61	13	12	8		7
	Mean		8.4	16.0	28.4*	24.8	33.2	53.2	15.6**	14.8**	12.8**		10.0*
	±S.D.	1.8	10.8	14.8	16.5	23.7	9.2	3.8	4.7	5.1		3.9	

Notes LDL-TGL : Low density lipoprotein-Triglycerides \* P<0.05 , \*\* P<0.01 : Significantly different from control.  
VLDL-TGL(%): Very low density lipoprotein-Triglycerides ratio

P57 Table 5-19 Blood chemistry in male microminipigs

Group	No. \ Day	VLDL-TGL (mg/dL)					CM-TGL (%)						
		-6	14	28	42	49	56	-6	14	28	42	49	56
1	1	22	26	29	27		38	8	4	9	7		9
	2	22	11	14	10		6	4	8	10	13		23
	3	17	15	16	12		12	7	9	10	7		14
	4	25	22					7	5				
	5	27	6	13	10		32	8	12	9	13		8
	Mean		22.6	16.0	18.0	14.8	22.0	6.8	7.6	9.5	10.0		13.5
±S.D.		3.8	8.1	7.4	8.2	15.4	1.6	3.2	0.6	3.5		6.9	
2	6	14	7	6	4		18	7	20	19	5		32
	7	10	4	6	4		11	9	12	21	17		15
	8	41	10	10	16		18	5	14	16	6		12
	9	8	5	5	4		32	3	15	19	8		28
	10	12	8	13	8		10	7	15	19	9		13
	Mean		17.0	6.8	8.0*	7.2	17.8	6.2	15.2**	18.8**	9.0		20.0
±S.D.		13.6	2.4	3.4	5.2	8.8	2.3	2.9	1.8	4.7		9.3	
3	11	19	3	9	8		11	10	11	15	14		19
	12	17	7	7	3		7	5	16	18	5		25
	13	32	10	20	14		13	9	15	13	15		24
	14	18	1	8	8		13	6	12	11	7		21
	15	19	2	6	7		5	2	26	14	5		5
	Mean		21.0	4.6*	10.0	8.0	9.8	6.4	16.0*	14.2*	9.2		18.8
±S.D.		6.2	3.8	5.7	3.9	3.6	3.2	6.0	2.6	4.9		8.1	
4	16	20	11	11	8		11	4	16	9	8		18
	17	20	0	4	5		11	9	26	6	12		19
	18	19	4	3	4		3	6	20	7	12		16
	19	17	3	6	7		9	8	23	16	13		21
	20	25	2	9	5		6	5	15	11	15		23
	Mean		20.2	4.0*	6.6*	5.8	8.0	6.4	20.0*	9.8*	12.0		19.4
±S.D.		2.9	4.2	3.4	1.6	3.5	2.1	4.6	4.0	2.5		2.7	
5	21	28	6	17	7		8	5	22	9	5		11
	22	11	2	2	1	1	2	6	16	12	5	10	19
	23	14	6	6	7		5	5	14	21	8		16
	24	13	4	10	4		4	10	16	10	15		39
	25	27	9	10	6		8	7	12	5	14		23
	Mean		18.6	5.4*	9.0	5.0*	5.4*	6.6	16.0**	11.4	9.4		21.6
±S.D.		8.2	2.6	5.6	2.5	2.6	2.1	3.7	5.9	4.8		10.7	

Notes VLDL-TGL : Very low density lipoprotein-Triglyceride; \* P<0.05 , \*\* P<0.01 : Significantly different from control.  
 CM-TGL(%) : Chylomicron-Triglycerides ratio

P58 Table 5-20 Blood chemistry in male microminipigs

Group	No. \ Day	CM-TGL (mg/dL)					
		-6	14	28	42	49	56
1	1	3	2	5	4		5
	2	2	2	3	4		7
	3	2	3	4	2		4
	4	3	2				
	5	4	3	3	5		5
	Mean	2.8	2.4	3.8	3.8		5.3
	±S.D.	0.8	0.5	1.0	1.3		1.3
2	6	3	6	5	1		18
	7	2	2	4	3		7
	8	3	6	6	3		11
	9	1	3	4	2		37
	10	2	4	8	3		7
	Mean	2.2	4.2	5.4	2.4		16.0
	±S.D.	0.8	1.8	1.7	0.9		12.6
3	11	4	3	8	7		13
	12	2	6	9	1		16
	13	6	8	10	8		13
	14	2	2	3	2		14
	15	1	5	5	2		1
	Mean	3.0	4.8	7.0	4.0		11.4
	±S.D.	2.0	2.4	2.9	3.2		5.9
4	16	1	11	5	4		8
	17	4	8	3	5		9
	18	2	9	2	4		4
	19	3	9	7	6		10
	20	2	4	3	4		8
	Mean	2.4	8.2**	4.0	4.6		7.8
	±S.D.	1.1	2.6	2.0	0.9		2.3
5	21	2	12	7	2		6
	22	2	2	2	1	1	4
	23	2	4	10	3		7
	24	3	4	6	6		28
	25	3	8	4	10		27
	Mean	2.4	6.0	5.8	4.4		14.4
	±S.D.	0.5	4.0	3.0	3.6		12.0

Notes CM-TGL : Chylomicron-Triglycerides

\*\* P<0.01 : Significantly different from control.