NASA Life Sciences Data Archive
Investigator name: Kenneth Baldwin
Mission (Payload): STS-58 (SLS-2)
Experiment title (ID): Effects of Zero-Gravity Exposure on Biochemical and Metabolic Properties of Skeletal Muscle (178127)
File name/Inventory ID: Preflight data folder

B:\MHC2.SPW Myosin Heavy Chain Sheet 15/9

-1- -2- -3- -4- -5- -6- -7- -8-

	TYPE	L=0	SEM	CONSOL	SEM	FLSOL	SEM	L=0VI
2	1.0000	86.9120	2.5300	4.2900	0.5000	3.0100	0.2600	46.9800
3	2.0000	13.0800	2.5300	1.0900	0.2200	0.7000	0.1100	31.4000
4	3.0000	0.0000	0.0000	0.2100	0.0500	0.5200	0.1200	12.0580
5	4.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.5600

Column 1

1= Soleus
2= VI
3= Plantaris
4= TA

Column 2

L+0 Soleus

Column 3

SEM

Column 4

Control Soleus

Column 5

SEM

Column 6

Flight Soleus

Column 7

SEM

Column 8

L+0 VI

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Copy: Table 1

B:\MHC2.SPW Myosin Heavy Chain Sheet

1	2	3	4	5	6	7	8
TYPE	L=0	SEM	CONSOL	SEM	FLSOL	SEM	L=OVI
1.0000	86.9120	2.5300	4.2900	0.5000	3.0100	0.2600	46.9800
2.0000	13.0800	2.5300	1.0900	0.2200	0.7000	0.1100	31.4000
3.0000	0.0000	0.0000	0.2100	0.0500	0.5200	0.1200	12.0580
4.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.5600

Column 1
1= soleus
2 = vastus intermedius (VI)
3 = plantaris
4 = tibilias anterior (TA)

Column 2
L+0 soleus

Column 3
Standard error of mean (SEM)

Column 4
Control soleus

Column 5
SEM

Column 6
Flight soleus

Column 7
SEM

Column 8
L+0 VI

B:\MHC2.SPW Myosin Heavy Chain Sheet

	-9-	-10-	-11-	-12-	-13-	-14-	-15-	-16-
1	SEM	CONVI	SEM	FLVI	SEM	L=0PLAN	SEM	CONPLAN
2	2.3100	1.5600	0.1000	1.3100	0.3200	2.6500	0.2100	0.2500
3	3.0400	1.4300	0.1100	0.9600	0.0700	12.0000	1.3900	2.4100
4	1.4800	0.8300	0.0600	1.1100	0.0700	36.1000	4.2300	6.7000
5	3.4800	0.5800	0.0400	0.5600	0.1300	49.2500	4.7500	8.6100

Column 9

SEM

Column 10

Control VI

Column 11

SEM

Column 12

flight VI

Column 13

SEM

Column 14

Lt0 plantaris

Column 15

SEM

Column 16

Control plantaris

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Copy: Table 2

B:\MHC2.SPW Myosin Heavy Chain Sheet

9	10	11	12	13	14	15	16
SEM	CONVI	SEM	FLVI	SEM	L=OPLAN	SEM	CONPLAN
2.3100	1.5600	0.1000	1.3100	0.3200	2.6500	0.2100	0.2500
3.0400	1.4300	0.1100	0.9600	0.0700	12.0000	1.3900	2.4100
1.4800	0.8300	0.0600	1.1100	0.0700	36.1000	4.2300	6.7000
3.4800	0.5800	0.0400	0.5600	0.1300	49.2500	4.7500	8.6100

Column 9
Standard error of mean (SEM)

Column 10
Control VI

Column 11
Standard error of mean (SEM)

Column 12
Flight VI

Column 13
SEM

Column 14
L+0 plantaris

Column 15
SEM

Column 16
Control plantaris

B:\MHC2.SPW Myosin Heavy Chain Sheet

	-17-	-18-	-19-	-20-	-21-	-22-	-23-	-24-
1	SEM	FLPLAN	SEM	L=0TA	SEM	CONTA	SEM	FLTA
2	0.0300	0.1400	0.0300			1.1500	0.3700	1.0200
3	0.1900	1.9500	0.2600			2.5900	0.0700	2.8900
4	0.4200	5.3200	0.3800			5.6200	0.3800	5.3600
5	0.9900	7.2200	0.2500			23.6300	0.5900	24.5000

Column 17

SEM

Column 18

flight planktons

Column 19

SEM

Column 20

Lto TA

Column 21

SEM

Column 22

Control TA

Column 23

SEM

Column 24

flight TA

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Copy: Table 3

B:\MHC2.SPW Myosin Heavy Chain Sheet

17	18	19	20	21	22	23	24
SEM	FLPLAN	SEM	L=0TA	SEM	CONTA	SEM	FLTA
0.0300	0.1400	0.0300			1.1500	0.3700	1.0200
0.1900	1.9500	0.2600			2.5900	0.0700	2.8900
0.4200	5.3200	0.3800			5.6200	0.3800	5.3600
0.9900	7.2200	0.2500			23.6300	0.5900	24.5000

Column 17
Standard error of mean (SEM)

Column 18
Flight plantaris

Column 19
Standard error of mean (SEM)

Column 20
L+0 TA

Column 21
SEM

Column 22
Control TA

Column 23
SEM

Column 24
Flight TA

B:\MHC2.SPW

Myosin Heavy Chain Sheet

	-25-	-26-	-27-
1	SEM	??	??
2	0.3500	??	??
3	0.2200	??	??
4	0.2600	??	??
5	0.7500		

Column 25

SEM

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Copy: Table 4

B:\MHC2.SPW Myosin Heavy Chain Sheet

25
SEM
0.3500
0.2200
0.2600
0.7500

Column 25
Standard error of mean (SEM)

B:\MHCCONC.SPW Myosin Heavy Chain Concentration

-1- -2- -3- -4- -5- -6- -7- -8-

	1MHC	CONSOL	SE	FSOL	SE	CONVI	SE	FVI
2	1.0000	0.0345	4.0800e-3	0.0308	3.0200e-3	0.0158	1.1900e-3	0.0159
3	2.0000	8.7100e-3	1.4900e-3	7.0100e-3	8.7000e-4	0.0146	1.4900e-3	0.0113
4	3.0000	1.7000e-3	3.0000e-4	5.1100e-3	8.3000e-4	8.4300e-3	7.6000e-4	0.0132
5	4.0000					5.9600e-3	6.2000e-4	6.6900e-3

Column 1

myosin heavy chain

1= I

2= IA

3= IIX

4= IIB

Column 2

Control Soleus

Column 3

Standard error

Column 4

flight Soleus

Column 5

Standard error

Column 6

Control VI

Column 7

Standard error

Column 8

flight VI

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Mission (Payload): STS-58 (SLS-2)
Experiment title (ID): Effects of Zero-Gravity Exposure on Biochemical and Metabolic Properties of Skeletal Muscle (178127 3/3)
File name/Inventory ID: Preflight data folder
Copy: Table 5

B:\MHCCONC.SPW Myosin Heavy Chain Concentration

1	2	3	4	5	6	7	8
MHC	CONSOL	SE	FSOL	SE	CONVI	SE	FVI
1.0000	0.0345	4.0800e-3	0.0308	3.0200e-3	0.0158	1.1900e-3	0.0159
2.0000	8.7100e-3	1.4900e-3	7.0100e-3	8.7000e-4	0.0146	1.4900e-3	0.0113
3.0000	1.7000e-3	3.0000e-3	5.1100e-3	8.3000e-4	8.4300e-3	7.6000e-4	0.0132
4.0000					5.9600e-3	6.2000e-4	6.6900e-3

Column 1
Myosin Heavy Chain
1= I
2 = IIA
3 = IIX
4 = IIB

Column 2
Control soleus

Column 3
Standard error (SE)

Column 4
Flight soleus

Column 5
SE

Column 6
Control VI

Column 7
SE

Column 8
Flight VI

	-9-	-10-	-11-	-12-	-13-	-14-	-15-	-16-
1	SE	CONPLAN	SE	FPLAN	SE	CONTA	SE	FTA
2	4.0600e-3	6.4000e-4	1.0000e-4	4.4000e-4	7.0000e-5	1.8300e-3	5.4000e-4	1.5900e-3
3	9.2000e-4	5.8800e-3	3.7000e-4	5.9600e-3	7.1000e-4	4.1400e-3	1.4000e-4	4.6100e-3
4	1.2300e-3	0.0163	2.6000e-4	0.0164	1.4700e-3	8.9600e-3	4.7000e-4	8.6000e-3
5	1.3000e-3	0.0209	1.8800e-3	0.0223	1.5800e-3	0.0378	1.6300e-3	0.0392

Column 9

Standard error

Column 10

Control plantaris

Column 11

Standard error

Column 12

flight plantaris

Column 13

Standard error

Column 14

Control TA

Column 15

Standard error

Column 16

flight TA

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Copy: Table 6

B:\MHCCON.SPW

9	10	11	12	13	14	15	16
SE	CONPLAN	SE	FPLAN	SE	CONTA	SE	FTA
0.00406e-3	6.4000e-4	1.0000e-4	4.4000e-4	7.0000e-5	1.8300e-3	5.4000e-4	1.5900e-3
9.2000e-4	5.8800e-3	3.7000e-4	5.9600e-3	7.1000e-4	4.1400e-3	1.4000e-4	4.6100e-3
1.2300e-3	00163	2.6000e-4	0.0164	1.4700e-3	8.9600e-3	4.7000e-4	8.6000e-3
1.3000e-3	0.0209	1.8800e-3	0.0223	1.5800e-3	0.0378	1.6300e-3	0.0392

Column 9
Standard error (SE)

Column 10
Control plantaris

Column 11
Standard error (SE)

Column 12
Flight plantaris

Column 13
SE

Column 14
Control TA

Column 15
SE

Column 16
Flight TA

1	SE	??
2	4.5000e-4	??
3	4.5000e-4	
4	8.8000e-4	
5	3.5000e-3	

Column 17

Standard error

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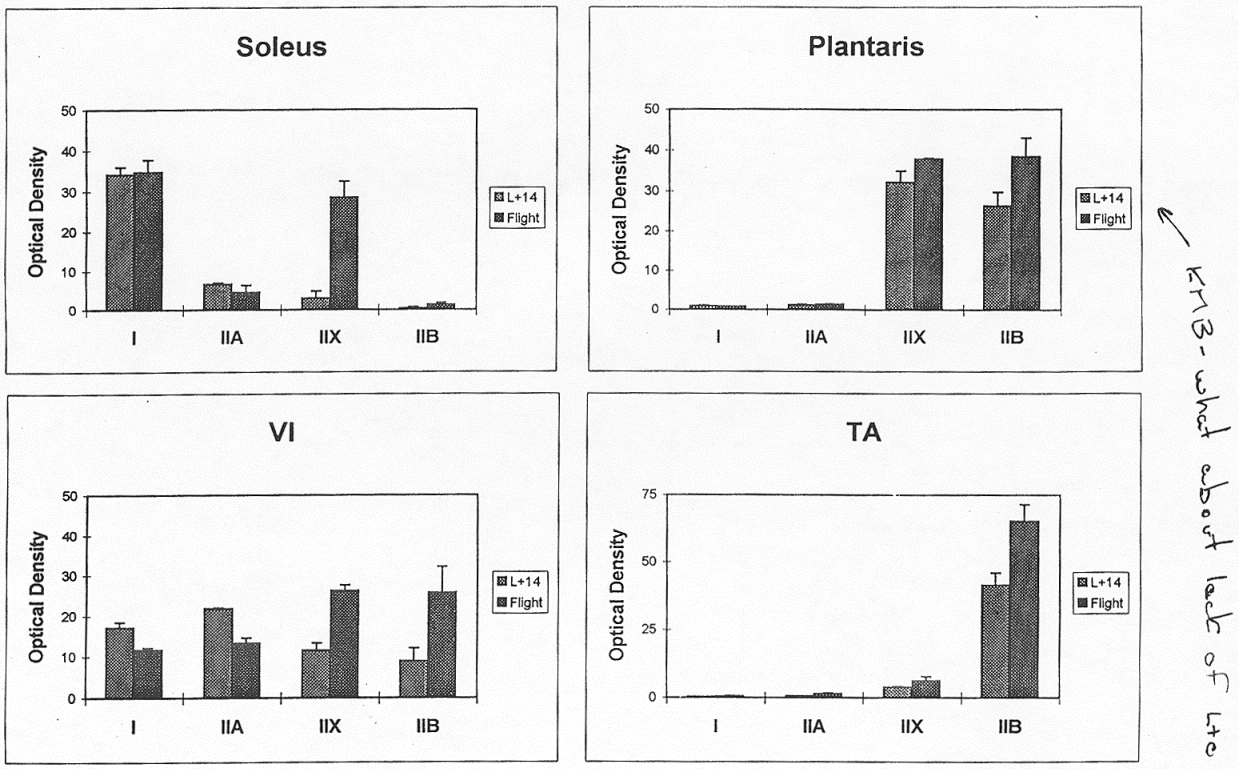
Copy: Table 7

B:\MHCCONC.SPW
17
SE
4.5000e-4
4.5000e-4
8.8000e-4
3.5000e-3

Column 17
Standard error (SE)

MHC mRNA Content Among Experimental Groups

(Expressed as Ratio of MHC mRNA density/28S density)



KMB - what about lack of Lte data