ods pdf file = "K:\BIOS 653\project\Output\_model7.pdf";

/\*this version has these variables in the model: Sex Group\*days Fatmass\_cent MuscleGlycogen\*/;

**data** exercise;

infile 'K:\BIOS 653\project\data\_biostat653\_project.csv'

delimiter = ','

dsd

missover

firstobs = **2**

DSD;

input ID $ Sex $ Group $ Days Fatmass FFM MuscleGlycogen

COXIV GIRperkgFFMperinsulin TotalAdiponectin LogTotalAdiponectin;

**run**;

/\*

proc contents data = exercise;

run;

\*/

**proc** **print** data = exercise (obs=**10**);

**run**;

\*just manaually doing the means, it's too annoying in SAS to automate it;

**data** exercise\_d;

set exercise;

Fatmass\_cent = Fatmass - **40.68**;

Adiponectin\_cent = TotalAdiponectin-**4010.396**;

MuscleGlycogen\_cent = MuscleGlycogen-**595.4059**;

**run**;

**proc** **print** data = exercise\_d (obs=**10**);

**run**;

title 'Unstructured';

**proc** **mixed** data = exercise\_d method=reml;

class ID Group Sex;

model GIRperkgFFMperinsulin = Sex Days Group\*Days Fatmass\_cent MuscleGlycogen\_cent/noint covb solution;

random intercept/type = un subject = ID g gcorr v vcorr;

repeated/type = un subject = ID r rcorr;

**run**;

title 'rand unstrucutred, main ARH(1)';

\*doesn't converge for this model;

**proc** **mixed** data = exercise\_d method=reml;

class ID Group Sex;

model GIRperkgFFMperinsulin = Sex Days Group\*Days Fatmass\_cent MuscleGlycogen\_cent/noint covb solution;

random intercept/type = un subject = ID g gcorr v vcorr;

repeated/type = ARH(**1**) subject = ID r rcorr;

**run**;

title 'rand unstrucutred, main ARH(1), Group specific var-cov matrix ';

\*doesn't converge for this model;

**proc** **mixed** data = exercise\_d method=reml;

class ID Group Sex;

model GIRperkgFFMperinsulin = Sex Days Group\*Days Fatmass\_cent MuscleGlycogen\_cent/noint covb solution;

random intercept/type = un group = Group subject = ID g gcorr v vcorr;

repeated/type = ARH(**1**) subject = ID r rcorr;

**run**;

title 'rand unstrucutred, main ANTE(1)';

**proc** **mixed** data = exercise\_d method=reml;

class ID Group Sex;

model GIRperkgFFMperinsulin = Sex Days Group\*Days Fatmass\_cent MuscleGlycogen\_cent/noint covb solution;

random intercept/type = un subject = ID g gcorr v vcorr;

repeated/type = ANTE(**1**) subject = ID r rcorr;

**run**;

title 'rand unstrucutred, main csh';

**proc** **mixed** data = exercise\_d method=reml;

class ID Group Sex;

model GIRperkgFFMperinsulin = Sex Days Group\*Days Fatmass\_cent MuscleGlycogen\_cent/noint covb solution;

random intercept/type = un subject = ID g gcorr v vcorr;

repeated/type = csh subject = ID r rcorr;

**run**;

title 'rand unstrucutred, main csh, Group specific var cov matrix';

**proc** **mixed** data = exercise\_d method=reml;

class ID Group Sex;

model GIRperkgFFMperinsulin = Sex Days Group\*Days Fatmass\_cent MuscleGlycogen\_cent/noint covb solution;

random intercept/type = un group = Group subject = ID g gcorr v vcorr;

repeated/type = csh subject = ID r rcorr;

**run**;