**R package SAEMIX syntax**

library(saemix)

#DATA: R object “data\_table” has one row for each measure of weight and an ID column representing the subject identifier. The syntax corresponds to the modelling of weight (Y) according to age (TIME) by subject (ID).

saemix.data <- saemixData(

name.data=data\_table,header=TRUE,sep=";",

na=NA,

name.group=c("ID"),name.predictors=c("TIME"),name.response=c("Y"),

units=list(x="days",y="kg", covariates=c("-")), name.X="TIME")

#MODEL

modelWt<-function(psi,id,xidep) {

 time <- xidep[,1]

 A <- psi[id,1]

 B <- psi[id,2]

 C <- psi[id,3]

 D <- psi[id,4]

 Ypred <- exp(A)+ exp(-B)\*time + exp(C)\*(1-exp(-exp(-D)\*time))

 return(ypred)

}

saemix.model<-saemixModel(model=modelWt,

description="Weight Growth Model",

psi0=matrix(c(1,5,1,5),ncol=4, byrow=TRUE,

dimnames=list(NULL, c("A","B","C","D"))),transform.par=c(0,0,0,0),

fixed.estim=c(1,1,1,1),

covariance.model=matrix(rep(1,16),ncol=4,byrow=TRUE),

omega.init=matrix(c(1,0.2,0.2,0.2,0.2,1,0.2,0.2,0.2,0.2,1,0.2,0.2,0.2,0.2,1),ncol=4,byrow=TRUE),

error.model="constant")

saemix.fit<-saemix(

saemix.model,

saemix.data,

list(seed=632545,directory="Jenss\_Weight", save=TRUE, save.graphs=TRUE, nbiter.saemix = c(2000, 100))

)