PFOS 1 compartment Run MCMC (v8)

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library(coda)  
library(bayesplot)

## This is bayesplot version 1.8.0

## - Online documentation and vignettes at mc-stan.org/bayesplot

## - bayesplot theme set to bayesplot::theme\_default()

## \* Does \_not\_ affect other ggplot2 plots

## \* See ?bayesplot\_theme\_set for details on theme setting

library(ggplot2)  
library(tidyverse)

## ── Attaching packages ─────────────────────────────────────── tidyverse 1.3.0 ──

## ✓ tibble 3.1.0 ✓ dplyr 1.0.5  
## ✓ tidyr 1.1.3 ✓ stringr 1.4.0  
## ✓ readr 1.4.0 ✓ forcats 0.5.1  
## ✓ purrr 0.3.4

## ── Conflicts ────────────────────────────────────────── tidyverse\_conflicts() ──  
## x dplyr::filter() masks stats::filter()  
## x dplyr::lag() masks stats::lag()

library(reshape2)

##   
## Attaching package: 'reshape2'

## The following object is masked from 'package:tidyr':  
##   
## smiths

library(here)

## here() starts at /media/projects/projects/PFAS\_PBPK/user/weihsueh\_2021/PFAS\_1cpt\_v8-main/PFOS\_1cpt\_v8

knitr::opts\_chunk$set(echo = TRUE, dpi = 300 )

Set up MCSim file

# this markdown file must be saved in top level directory for the following to work; the mcsim code depends on getwd results.  
mdir <- "MCSim"  
source(here::here(mdir,"setup\_MCSim.R"))  
# Make mod.exe (used to create mcsim executable from model file)  
makemod()

## The mod.exe had been created.

## Indiv and Pop data MCMC - 4 chains

Running model.

## ─ Session info ───────────────────────────────────────────────────────────────  
## setting value   
## version R version 3.6.3 (2020-02-29)   
## os Red Hat Enterprise Linux Server 7.9 (Maipo)  
## system x86\_64, linux-gnu   
## ui X11   
## language (EN)   
## collate en\_US.UTF-8   
## ctype en\_US.UTF-8   
## tz America/New\_York   
## date 2022-01-14   
##   
## ─ Packages ───────────────────────────────────────────────────────────────────  
## package \* version date lib source   
## assertthat 0.2.1 2019-03-21 [2] CRAN (R 3.6.3)  
## backports 1.2.1 2020-12-09 [2] CRAN (R 3.6.3)  
## bayesplot \* 1.8.0 2021-01-10 [2] CRAN (R 3.6.3)  
## broom 0.7.5 2021-02-19 [2] CRAN (R 3.6.3)  
## cachem 1.0.4 2021-02-13 [2] CRAN (R 3.6.3)  
## callr 3.5.1 2020-10-13 [2] CRAN (R 3.6.3)  
## cellranger 1.1.0 2016-07-27 [2] CRAN (R 3.6.3)  
## cli 2.3.1 2021-02-23 [2] CRAN (R 3.6.3)  
## coda \* 0.19-4 2020-09-30 [2] CRAN (R 3.6.3)  
## colorspace 2.0-0 2020-11-11 [2] CRAN (R 3.6.3)  
## crayon 1.4.1 2021-02-08 [2] CRAN (R 3.6.3)  
## DBI 1.1.1 2021-01-15 [2] CRAN (R 3.6.3)  
## dbplyr 2.1.0 2021-02-03 [2] CRAN (R 3.6.3)  
## debugme 1.1.0 2017-10-22 [2] CRAN (R 3.6.3)  
## desc 1.3.0 2021-03-05 [2] CRAN (R 3.6.3)  
## devtools 2.3.2 2020-09-18 [2] CRAN (R 3.6.3)  
## digest 0.6.27 2020-10-24 [2] CRAN (R 3.6.3)  
## dplyr \* 1.0.5 2021-03-05 [2] CRAN (R 3.6.3)  
## ellipsis 0.3.1 2020-05-15 [2] CRAN (R 3.6.3)  
## evaluate 0.14 2019-05-28 [2] CRAN (R 3.6.3)  
## fansi 0.4.2 2021-01-15 [2] CRAN (R 3.6.3)  
## fastmap 1.1.0 2021-01-25 [2] CRAN (R 3.6.3)  
## forcats \* 0.5.1 2021-01-27 [2] CRAN (R 3.6.3)  
## fs 1.5.0 2020-07-31 [2] CRAN (R 3.6.3)  
## generics 0.1.0 2020-10-31 [2] CRAN (R 3.6.3)  
## ggplot2 \* 3.3.3 2020-12-30 [2] CRAN (R 3.6.3)  
## ggridges 0.5.3 2021-01-08 [2] CRAN (R 3.6.3)  
## glue 1.4.2 2020-08-27 [2] CRAN (R 3.6.3)  
## gtable 0.3.0 2019-03-25 [2] CRAN (R 3.6.3)  
## haven 2.3.1 2020-06-01 [2] CRAN (R 3.6.3)  
## here \* 1.0.1 2020-12-13 [2] CRAN (R 3.6.3)  
## hms 1.0.0 2021-01-13 [2] CRAN (R 3.6.3)  
## htmltools 0.5.1.1 2021-01-22 [2] CRAN (R 3.6.3)  
## httr 1.4.2 2020-07-20 [2] CRAN (R 3.6.3)  
## jsonlite 1.7.2 2020-12-09 [2] CRAN (R 3.6.3)  
## knitr 1.31 2021-01-27 [2] CRAN (R 3.6.3)  
## lattice 0.20-41 2020-04-02 [2] CRAN (R 3.6.3)  
## lifecycle 1.0.0 2021-02-15 [2] CRAN (R 3.6.3)  
## lubridate 1.7.10 2021-02-26 [2] CRAN (R 3.6.3)  
## magrittr 2.0.1 2020-11-17 [2] CRAN (R 3.6.3)  
## memoise 2.0.0 2021-01-26 [2] CRAN (R 3.6.3)  
## modelr 0.1.8 2020-05-19 [2] CRAN (R 3.6.3)  
## munsell 0.5.0 2018-06-12 [2] CRAN (R 3.6.3)  
## pillar 1.5.1 2021-03-05 [2] CRAN (R 3.6.3)  
## pkgbuild 1.2.0 2020-12-15 [2] CRAN (R 3.6.3)  
## pkgconfig 2.0.3 2019-09-22 [2] CRAN (R 3.6.3)  
## pkgload 1.2.0 2021-02-23 [2] CRAN (R 3.6.3)  
## plyr 1.8.6 2020-03-03 [2] CRAN (R 3.6.3)  
## prettyunits 1.1.1 2020-01-24 [2] CRAN (R 3.6.3)  
## processx 3.4.5 2020-11-30 [2] CRAN (R 3.6.3)  
## ps 1.6.0 2021-02-28 [2] CRAN (R 3.6.3)  
## purrr \* 0.3.4 2020-04-17 [2] CRAN (R 3.6.3)  
## R6 2.5.0 2020-10-28 [2] CRAN (R 3.6.3)  
## Rcpp 1.0.6 2021-01-15 [2] CRAN (R 3.6.3)  
## readr \* 1.4.0 2020-10-05 [2] CRAN (R 3.6.3)  
## readxl 1.3.1 2019-03-13 [2] CRAN (R 3.6.3)  
## remotes 2.2.0 2020-07-21 [2] CRAN (R 3.6.3)  
## reprex 1.0.0 2021-01-27 [2] CRAN (R 3.6.3)  
## reshape2 \* 1.4.4 2020-04-09 [2] CRAN (R 3.6.3)  
## rlang 0.4.10 2020-12-30 [2] CRAN (R 3.6.3)  
## rmarkdown 2.7 2021-02-19 [2] CRAN (R 3.6.3)  
## rprojroot 2.0.2 2020-11-15 [2] CRAN (R 3.6.3)  
## rstudioapi 0.13 2020-11-12 [2] CRAN (R 3.6.3)  
## rvest 1.0.0 2021-03-09 [2] CRAN (R 3.6.3)  
## scales 1.1.1 2020-05-11 [2] CRAN (R 3.6.3)  
## sessioninfo 1.1.1 2018-11-05 [2] CRAN (R 3.6.3)  
## stringi 1.5.3 2020-09-09 [2] CRAN (R 3.6.3)  
## stringr \* 1.4.0 2019-02-10 [2] CRAN (R 3.6.3)  
## testthat 3.0.2 2021-02-14 [2] CRAN (R 3.6.3)  
## tibble \* 3.1.0 2021-02-25 [2] CRAN (R 3.6.3)  
## tidyr \* 1.1.3 2021-03-03 [2] CRAN (R 3.6.3)  
## tidyselect 1.1.0 2020-05-11 [2] CRAN (R 3.6.3)  
## tidyverse \* 1.3.0 2019-11-21 [2] CRAN (R 3.6.3)  
## usethis 2.0.1 2021-02-10 [2] CRAN (R 3.6.3)  
## utf8 1.2.1 2021-03-12 [2] CRAN (R 3.6.3)  
## vctrs 0.3.6 2020-12-17 [2] CRAN (R 3.6.3)  
## withr 2.4.1 2021-01-26 [2] CRAN (R 3.6.3)  
## xfun 0.22 2021-03-11 [2] CRAN (R 3.6.3)  
## xml2 1.3.2 2020-04-23 [2] CRAN (R 3.6.3)  
## yaml 2.2.1 2020-02-01 [2] CRAN (R 3.6.3)  
##   
## [1] /home/ad.abt.local/layc/R/x86\_64-pc-linux-gnu-library/3.6  
## [2] /opt/R/3.6.3/lib64/R/library