```
ComputeParms <-
## Pm is the vector of constant parameters
function(Pm) {
  nqparms <-
    c("Vgut", "Vlung","Vart","Vven","Vderm","Vrest","Vliver","Vkidney",
      "Qcardiac","Qgut","Qderm","Qrest","Qliver","Qkidney","Qgfr"
     )
  qparms <- structure(vector("list",length(nqparms)), names=nqparms)
  Pm <- c(Pm, qparms)
  Pm[["Vgut"]] <- Pm[["Vgutc"]] * Pm[["BW"]]
  Pm[["Vlung"]] <- Pm[["Vlungc"]] * Pm[["BW"]]
  Pm[["Vart"]] <- Pm[["Vartc"]] * Pm[["BW"]]
  Pm[["Vven"]] <- Pm[["Vvenc"]] * Pm[["BW"]]
  Pm[["Vderm"]] <- Pm[["Vdermc"]] * Pm[["BW"]]
  Pm[["Vrest"]] <- Pm[["Vrestc"]] * Pm[["BW"]]
  Pm[["Vliver"]] <- Pm[["Vliverc"]] * Pm[["BW"]]
  Pm[["Vkidney"]] <- Pm[["Vkidneyc"]] * Pm[["BW"]]
  Pm[["Qcardiac"]] <- Pm[["Qcardiacc"]] * Pm[["BW"]]^(3/4)
  Pm[["Qgut"]] <- Pm[["Qgutf"]]*Pm[["Qcardiac"]]
  Pm[["Qderm"]] <- Pm[["Qdermf"]]*Pm[["Qcardiac"]]
  Pm[["Qrest"]] <- (1-Pm[["Qgutf"]]-Pm[["Qdermf"]]-Pm[["Qliverf"]]- Pm[["Qkidneyf"]])*Pm[["Qcardiac"]]
  Pm[["Qliver"]] <- Pm[["Qliverf"]]*Pm[["Qcardiac"]]
  Pm[["Qkidney"]] <- Pm[["Qkidneyf"]]*Pm[["Qcardiac"]]
  Pm[["Qgfr"]] <- Pm[["Qgfrc"]]* Pm[["BW"]]^(3/4)

  if (any(Pm == NULL)) browser()
  return(Pm)
}
```