

```
;; 1. Based on: run19
;; 2. Description: imax model ON CSF1R CFB CT +GAM
;; x1. Author: smartk1
```

```
$PROBLEM      step imax model ON CSF1R
$INPUT  C DOSE AMT ID PD MDV AUCINF AUClast CMAX CT DELTA DV BL PVNS TREAT PAC PRD
$DATA    csf1r_nm_ready_2.csv IGNORE=C
$PRED
```

```
*****
;
;IMAX AUC model
;Is there benefit with increasing exposures?
*****
;
```

```
E0 = THETA(1) *EXP(ETA(1));
IMAX = THETA(2) *EXP(ETA(2));
IC50 = EXP(THETA(3) +ETA(3));
GAM=THETA(4)
```

```
EFF=IMAX*CT**GAM/(CT**GAM+IC50**GAM)
```

```
F = E0-EFF
```

```
IPRED=F
IRES=DV-IPRED
IWRES=IRES/IPRED
```

```
Y = F +ERR(1);)+ERR(2)
```

```
$THETA
0.01; [E0]
(0,95) ; [IMAX]
(5) ; [IC50]
(0,1,10);[GAM]
```

```
$OMEGA
0 FIX;[P]
0 FIX;[P]
0 FIX;[P]
```

```
$SIGMA
;.1 ;[P]
10
```

```
$EST PRINT=10 POSTHOC MAXEVAL=9999 SIG=5 METHOD=1 INTERACTION MSFO=run19a.msfc
$COVARIANCE
$TABLE DOSE AUCINF CMAX CT ID IPRED IRES IWRES CWRES NOPRINT ONEHEADER
FILE=SDTAB19a
$TABLE ID IMAX IC50 E0 GAM ETA1 ETA2 ETA3 NOPRINT NOAPPEND ONEHEADER FILE=PATAB19a
$TABLE ID PRD PVNS PAC NOPRINT NOAPPEND ONEHEADER FILE=CATAB19a
$TABLE ID BL NOPRINT NOAPPEND ONEHEADER FILE=COTAB19a
```