

## **Maximum Likelihood Parameters for All Distributions Fit to Age Spectra in Table 4**

### **Ages Based on Aspartic Acid**

Exponential Distribution:

rate parameter  $\lambda = 0.842$

Weibull Distribution:

shape parameter  $k = 0.471$

scale parameter  $\lambda = 0.584$

Single Log-normal Distribution:

mean parameter  $\mu = -1.744$

standard deviation parameter  $\sigma = 2.436$

Exponential plus Log-normal:

exponential rate parameter  $\lambda = 0.412$

log-normal mean parameter  $\mu = -3.795$

log-normal standard deviation parameter  $\sigma = 1.156$

exponential:log-normal proportions = 0.520:0.480

Weibull plus Log-normal:

shape parameter  $k = 1.984$

scale parameter  $\lambda = 3.132$

log-normal mean parameter  $\mu = -3.588$

log-normal standard deviation parameter  $\sigma = 1.288$

weibull:log-normal proportions = 0.415:0.585

Double Weibull:

shape parameter  $k_1 = 1.817$

scale parameter  $\lambda_1 = 2.997$

shape parameter  $k_2 = 0.904$

scale parameter  $\lambda_2 = 0.0454$

weibull<sub>1</sub>: weibull<sub>2</sub> proportions = 0.435:0.565

Double Log-normal:

log-normal mean parameter  $\mu_1 = 0.960$

log-normal standard deviation parameter  $\sigma_1 = 0.473$

log-normal mean parameter  $\mu_2 = -3.474$

log-normal standard deviation parameter  $\sigma_2 = 1.386$

log-normal<sub>1</sub>: log-normal<sub>2</sub> proportions = 0.390:0.610

### **Ages Based on Glutamic Acid**

Exponential Distribution:

rate parameter  $\lambda = 0.591$

Weibull Distribution:

shape parameter  $k = 0.647$

scale parameter  $\lambda = 1.193$

Single Log-normal Distribution:

mean parameter  $\mu = -0.655$

standard deviation parameter  $\sigma = 1.677$

Exponential plus Log-normal:

exponential rate parameter  $\lambda = 4.866$

log-normal mean parameter  $\mu = 0.713$

log-normal standard deviation parameter  $\sigma = 0.951$

exponential:log-normal proportions = 0.500:0.500

Weibull plus Log-normal:

shape parameter  $k = 0.875$

scale parameter  $\lambda = 2.581$

log-normal mean parameter  $\mu = -1.931$

log-normal standard deviation parameter  $\sigma = 1.090$

weibull:log-normal proportions = 0.570:0.430

Double Weibull:

shape parameter  $k_1 = 11.129$

scale parameter  $\lambda_1 = 8.973$

shape parameter  $k_2 = 0.659$

scale parameter  $\lambda_2 = 1.094$

weibull<sub>1</sub>: weibull<sub>2</sub> proportions = 0.024:0.976

Double Log-normal:

log-normal mean parameter  $\mu_1 = -1.895$

log-normal standard deviation parameter  $\sigma_1 = 1.098$

log-normal mean parameter  $\mu_2 = 0.755$

log-normal standard deviation parameter  $\sigma_2 = 0.952$

log-normal<sub>1</sub>: log-normal<sub>2</sub> proportions = 0.532:0.468

## Mean of Ages Based on Aspartic and Glutamic Acid

Exponential Distribution:

rate parameter  $\lambda = 0.694$

Weibull Distribution:

shape parameter  $k = 0.612$

scale parameter  $\lambda = 0.984$

Single Log-normal Distribution:

mean parameter  $\mu = -0.930$

standard deviation parameter  $\sigma = 1.855$

Exponential plus Log-normal:

exponential rate parameter  $\lambda = 0.401$

log-normal mean parameter  $\mu = -2.579$

log-normal standard deviation parameter  $\sigma = 0.961$

exponential:log-normal proportions = 0.444:0.556

Weibull plus Log-normal:

shape parameter  $k = 1.240$

scale parameter  $\lambda = 2.939$

log-normal mean parameter  $\mu = -2.480$

log-normal standard deviation parameter  $\sigma = 1.020$

weibull:log-normal proportions = 0.500:0.500

Double Weibull:

shape parameter  $k_1 = 3.273$

scale parameter  $\lambda_1 = 9.375$

shape parameter  $k_2 = 0.612$

scale parameter  $\lambda_2 = 0.983$

weibull<sub>1</sub>: weibull<sub>2</sub> proportions = 0.0002:0.9998

Double Log-normal:

log-normal mean parameter  $\mu_1 = 0.919$

log-normal standard deviation parameter  $\sigma_1 = 0.675$

log-normal mean parameter  $\mu_2 = -2.298$

log-normal standard deviation parameter  $\sigma_2 = 1.117$

log-normal<sub>1</sub>: log-normal<sub>2</sub> proportions = 0.425:0.575