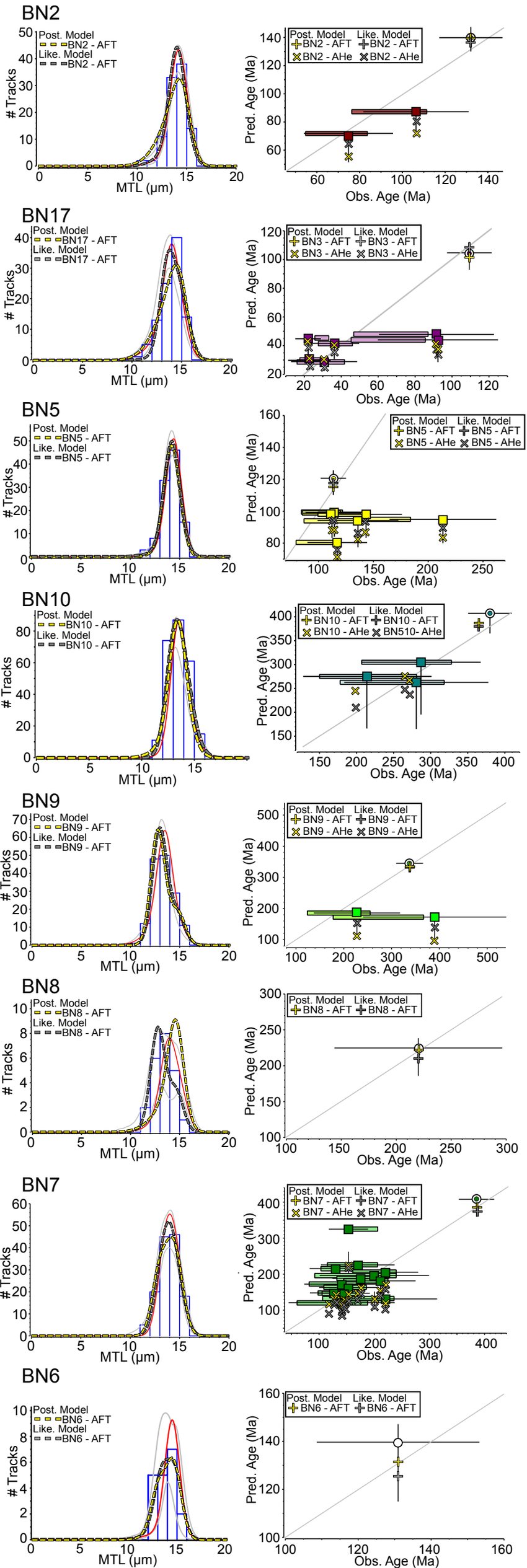Data predictions for maximum posterior and maximum likelihood models