Supplementary Figure 1: Calibration assessment of the model based on fat mass (FM) before re-calibration of the intercept term, by country.



Footnote: Each plot shows the agreement between individuals’ predicted values of FM from the model (x-axis) against the individuals’ observed FM values (y-axis). Dashed line represents line of equality. Solid line is the calibration curve, which is a smooth fit through the individual data points, showing the average calibration across individuals (with lighter shading the 95% CI of the curve). Slope = calibration slope (ideal value 1); CITL =calibration-in-the-large (ideal value 0).

Supplementary Figure 2: Calibration assessment of the model based on natural log transformed fat-free mass (lnFFM) after re-calibration of the intercept term, by country.



Footnote: Each plot shows the agreement between individuals’ predicted values of lnFFM from the model (x-axis) against the individuals’ observed lnFFM values (y-axis). Dashed line represents line of equality. Solid line is the calibration curve, which is a smooth fit through the individual data points, showing the average calibration across individuals (with lighter shading the 95% CI of the curve). Slope = calibration slope (ideal value 1); CITL =calibration-in-the-large (ideal value 0).

Supplementary Figure 3: Calibration assessment of the model based on fat mass (FM) after re-calibration of the intercept term, by country.

Footnote: Each plot shows the agreement between individuals’ predicted values of FM from the model (x-axis) against the individuals’ observed FM values (y-axis). Dashed line represents line of equality. Solid line is the calibration curve, which is a smooth fit through the individual data points, showing the average calibration across individuals (with lighter shading the 95% CI of the curve). Slope = calibration slope (ideal value 1); CITL =calibration-in-the-large (ideal value 0).

Supplementary Figure 4: Calibration assessment of the model based on fat mass (FM) after re-calibration of the intercept term, by sex and country



Footnote: Each plot shows the agreement between individuals’ predicted values of FM from the model (x-axis) against the individuals’ observed FM values (y-axis). Dashed line represents line of equality. Solid line is the calibration curve, which is a smooth fit through the individual data points, showing the average calibration across individuals (with lighter shading the 95% CI of the curve). Slope = calibration slope (ideal value 1); CITL =calibration-in-the-large (ideal value 0).

Supplementary Figure 5: Calibration assessment of BIA assessed fat mass (FM) compared with FM from deuterium dilution



Footnote: Each plot shows the agreement between individuals’ predicted values of lnFFM from the model (x-axis) against the individuals’ observed lnFFM values (y-axis). Dashed line represents line of equality. Solid line is the calibration curve, which is a smooth fit through the individual data points, showing the average calibration across individuals (with lighter shading the 95% CI of the curve). Slope = calibration slope (ideal value 1); CITL =calibration-in-the-large (ideal value 0).