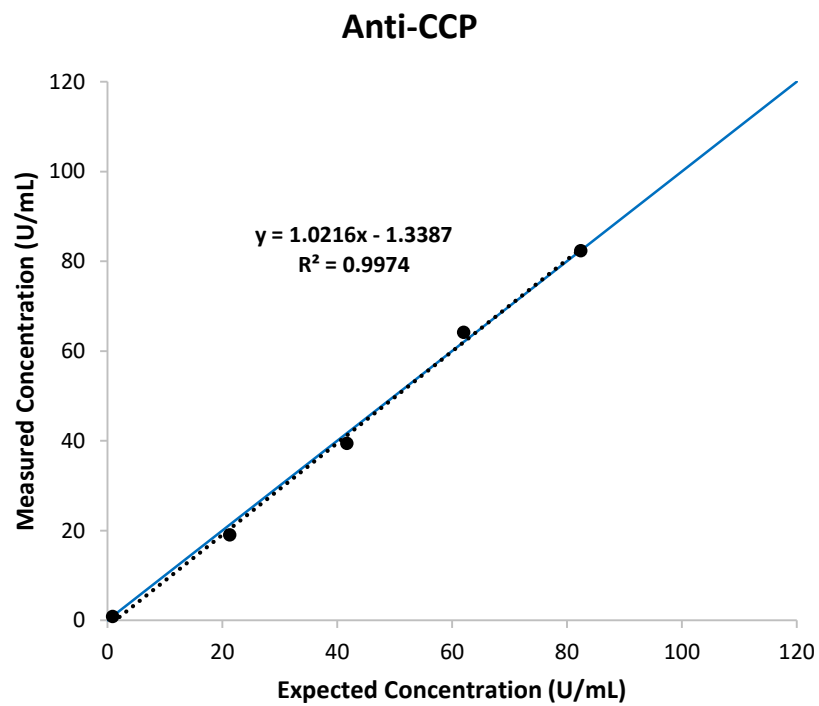
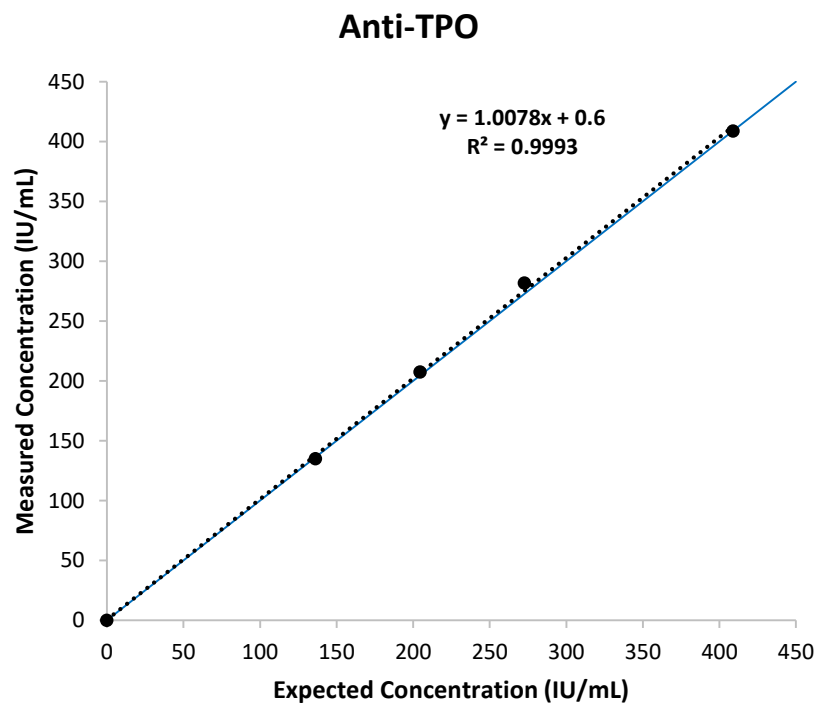


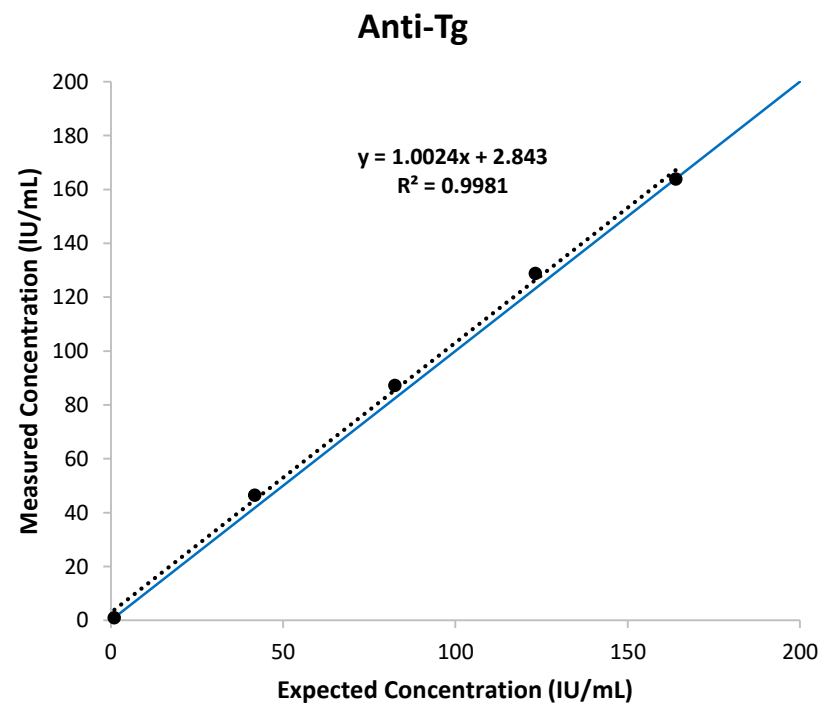
A.



B.

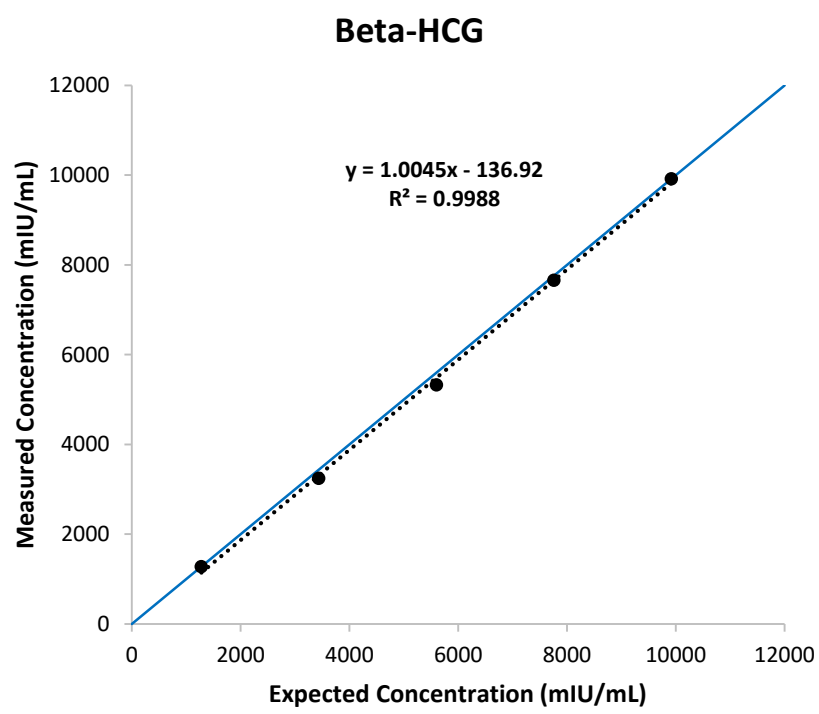


C.

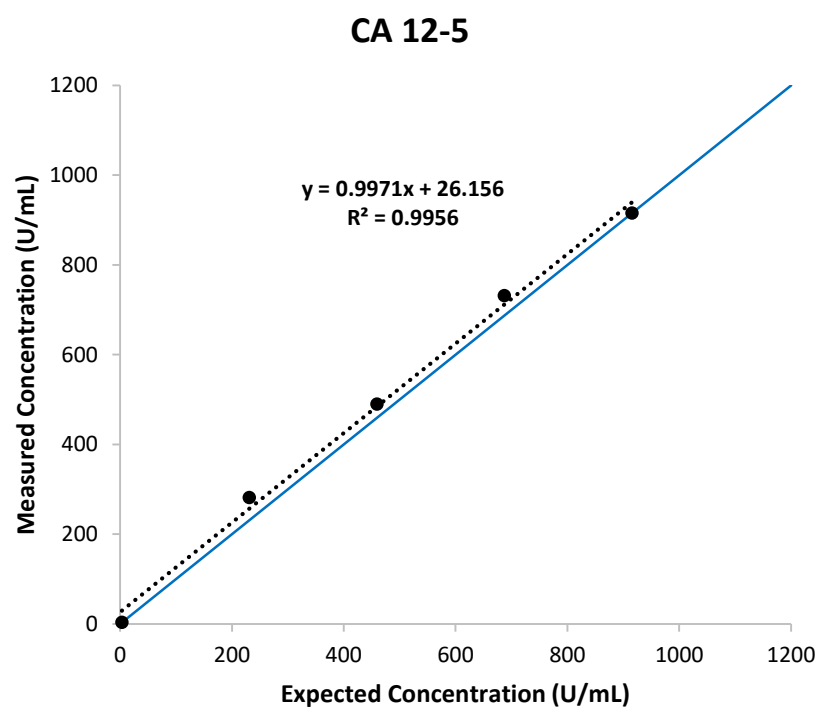


Supplemental Figure 1: Assay linearity measured using five-part patient linearity series. All data points are presented as the average of triplicate measurements. Line of best fit was determined by linear regression for **A)** Anti-CCP, **B)** Anti-TPO, **C)** Anti-Tg.

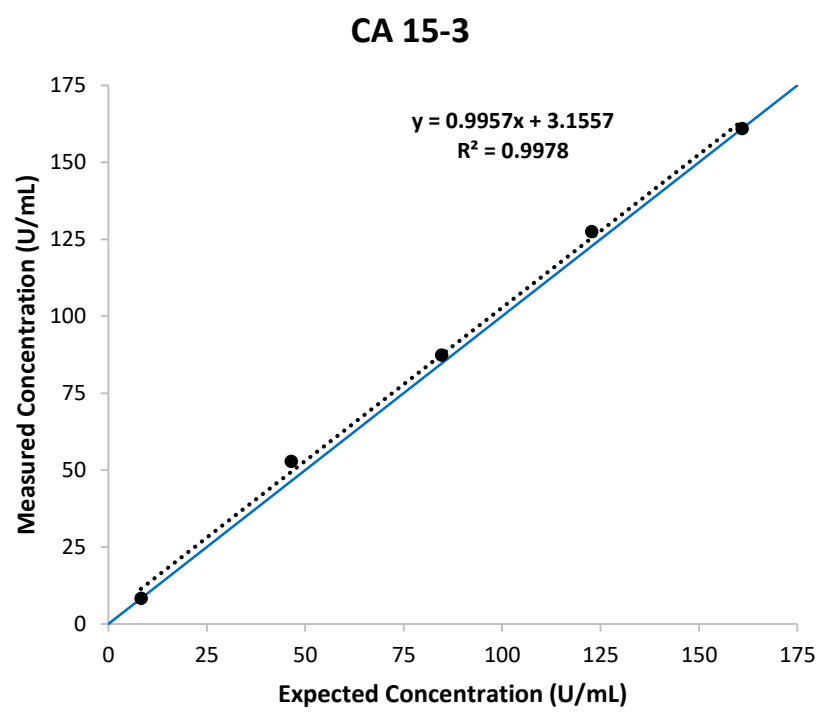
A.



B.

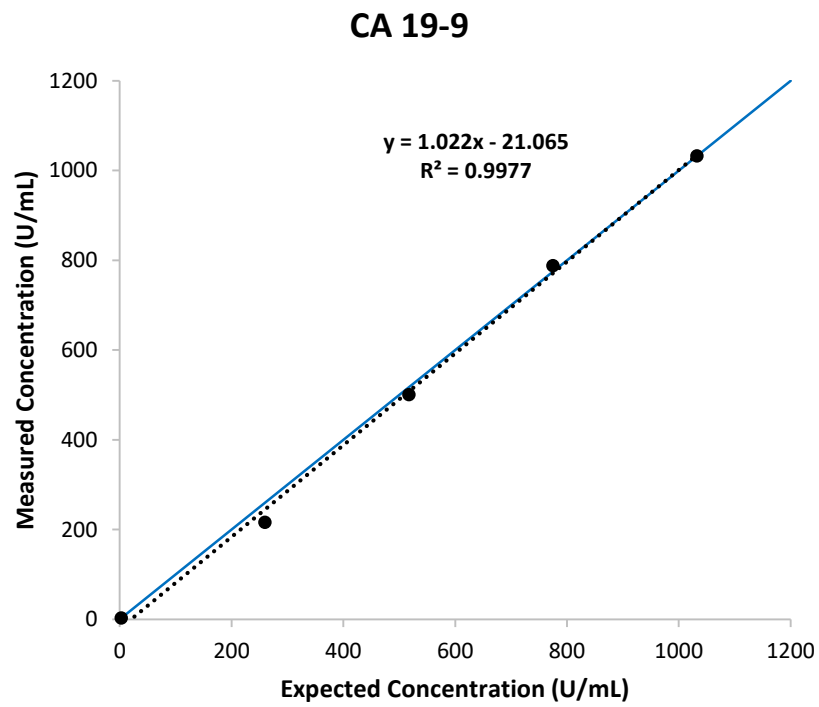


C.

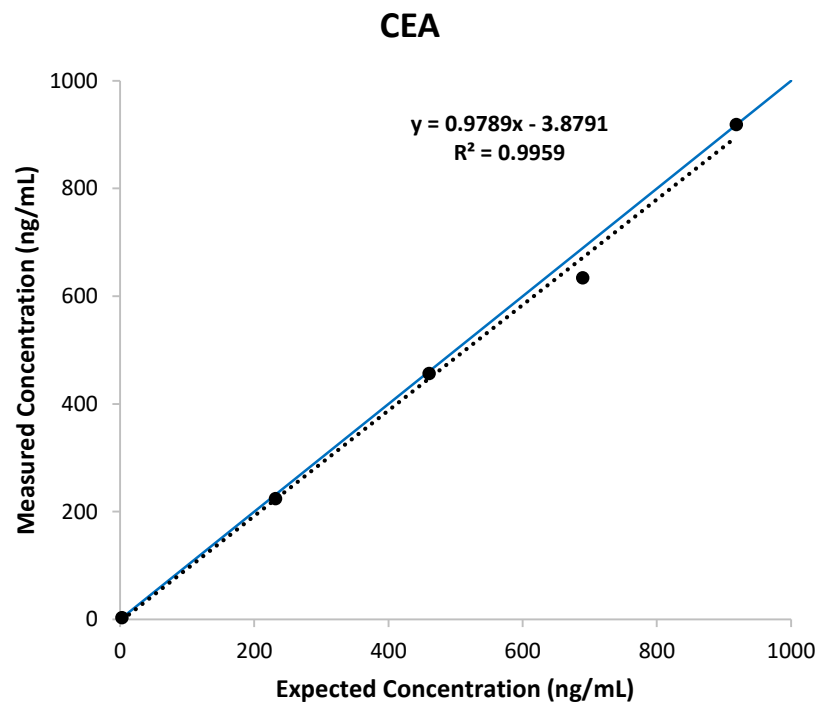


Supplemental Figure 2: Assay linearity measured using five-part patient linearity series. All data points are presented as the average of triplicate measurements. Line of best fit was determined by linear regression for **A)** Beta HCG, **B)** CA 12-5, **C)** CA 15-3.

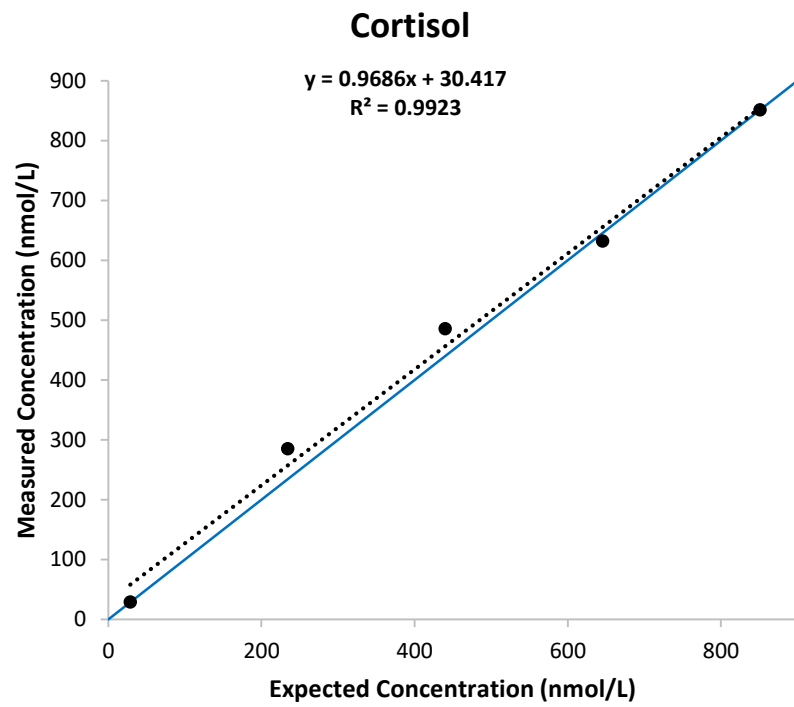
A.



B.

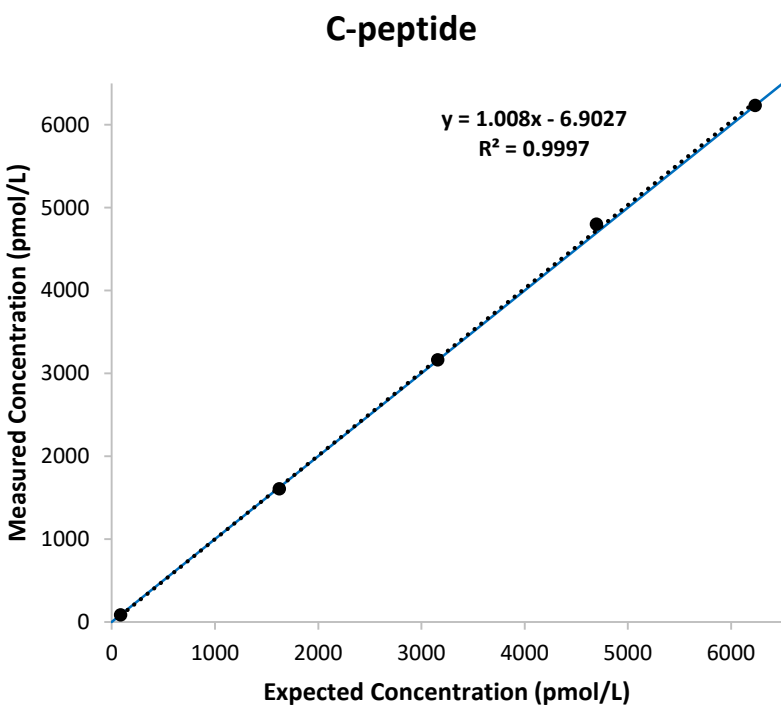


C.

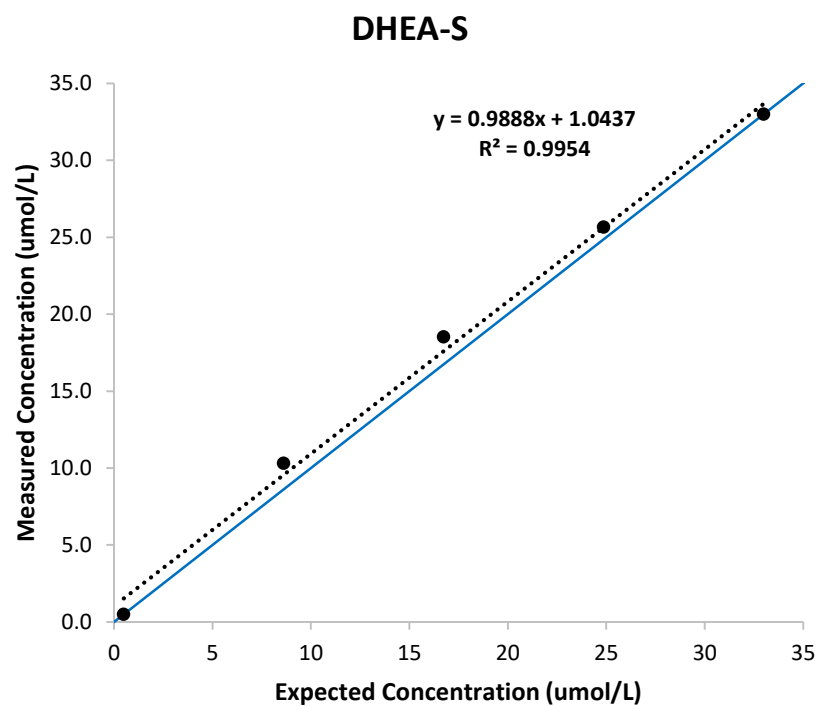


Supplemental Figure 3: Assay linearity measured using five-part patient linearity series. All data points are presented as the average of triplicate measurements. Line of best fit was determined by linear regression for **A)** CA 19-9, **B)** CEA, **C)** Cortisol.

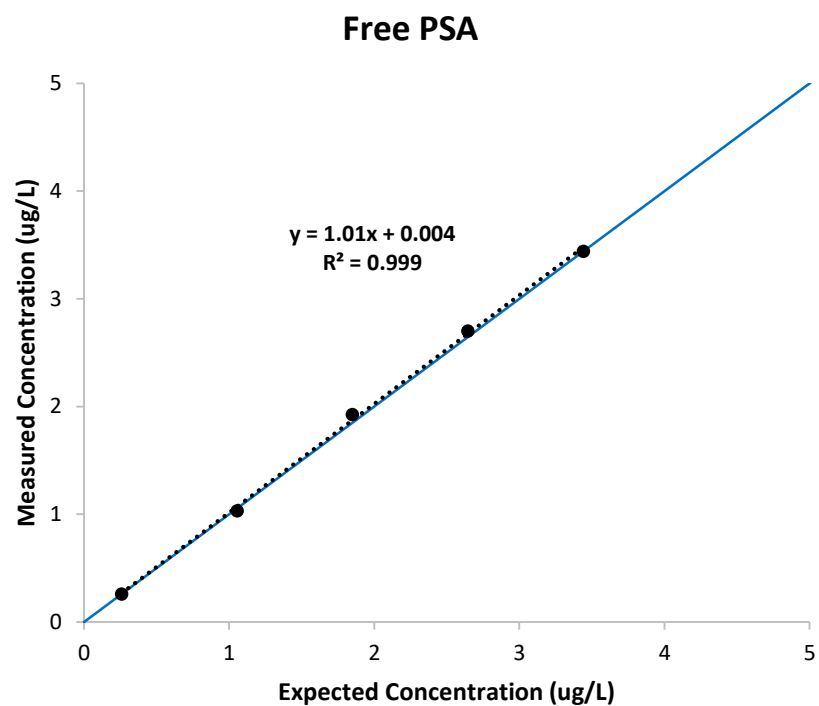
A.



B.

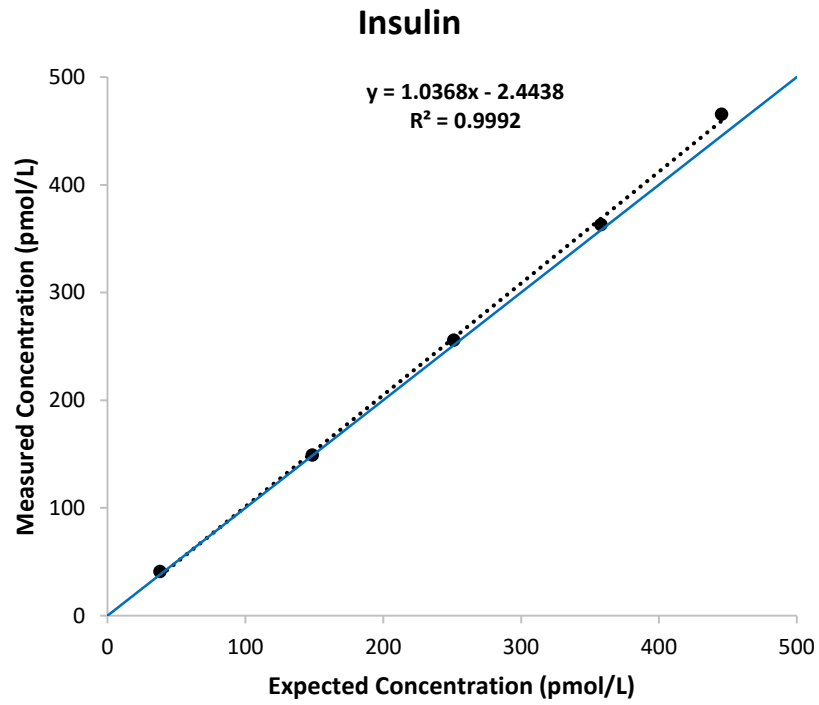


C.

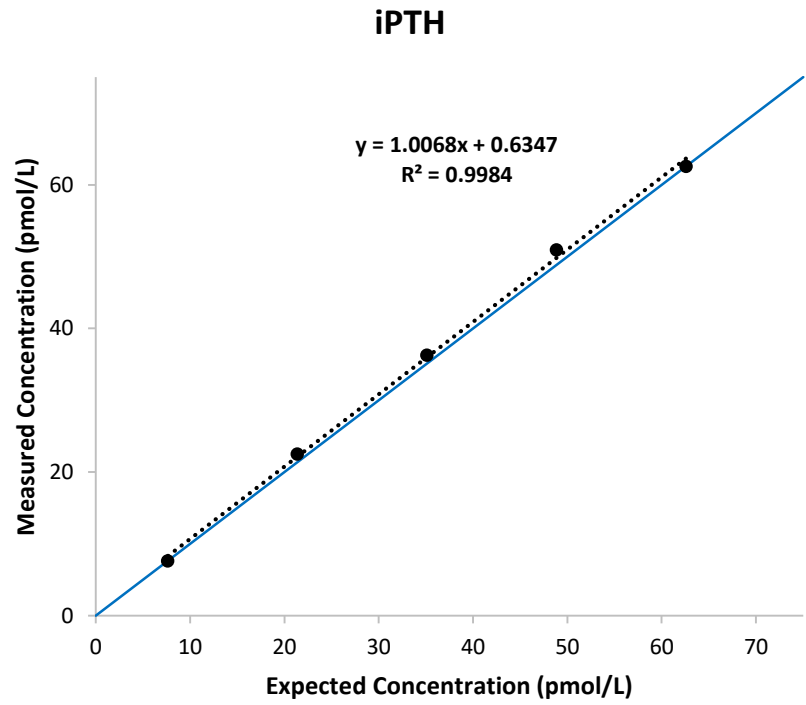


Supplemental Figure 4: Assay linearity measured using five-part patient linearity series. All data points are presented as the average of triplicate measurements. Line of best fit was determined by linear regression for **A)** C-peptide, **B)** DHEA-S, **C)** Free PSA.

A.

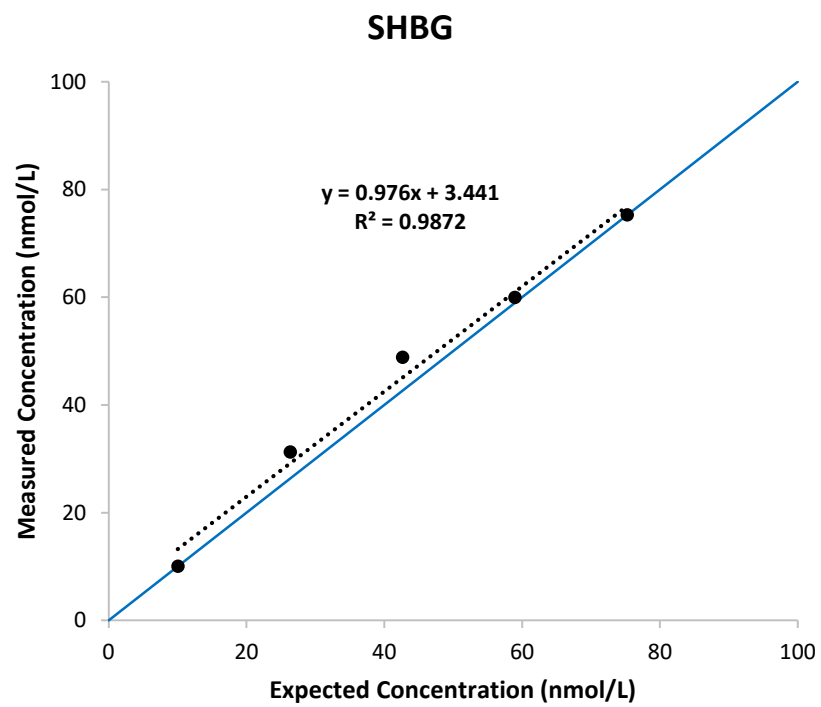


B.

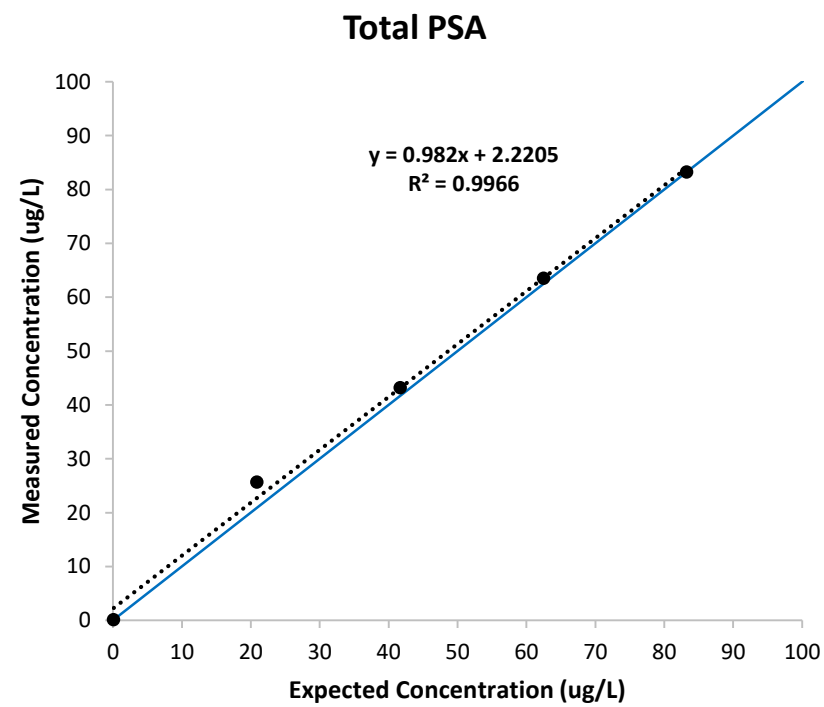


Supplemental Figure 5: Assay linearity measured using five-part patient linearity series. All data points are presented as the average of triplicate measurements. Line of best fit was determined by linear regression for **A)** Insulin, **B)** iPTH.

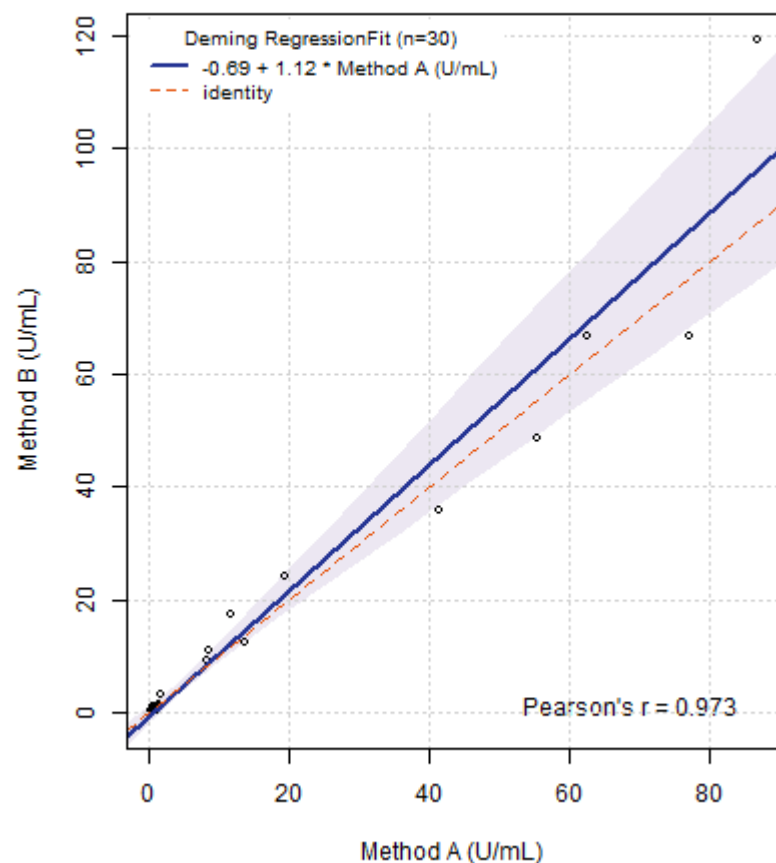
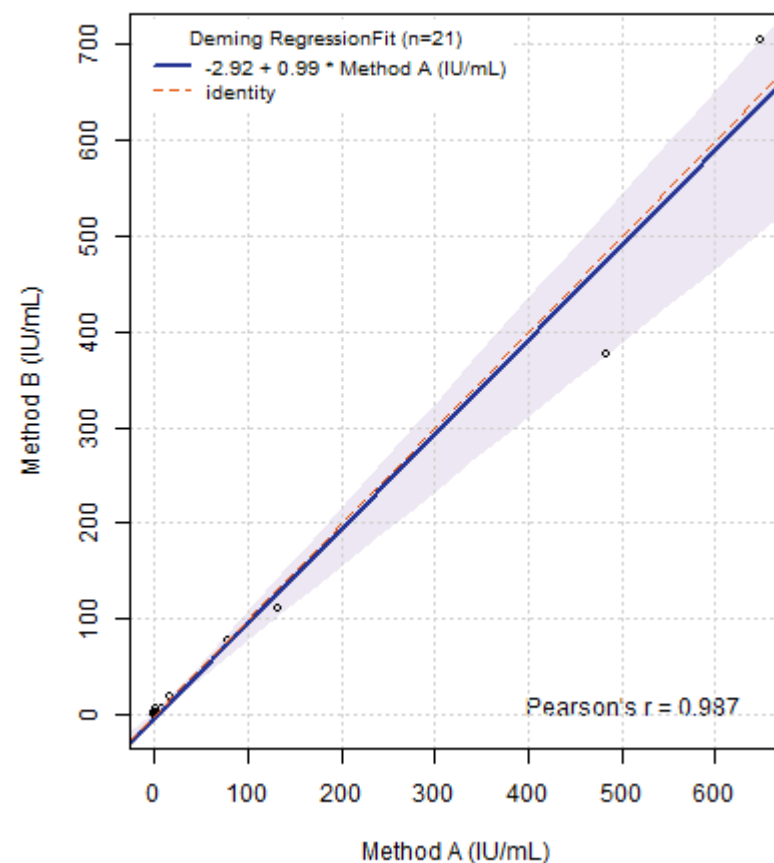
A.



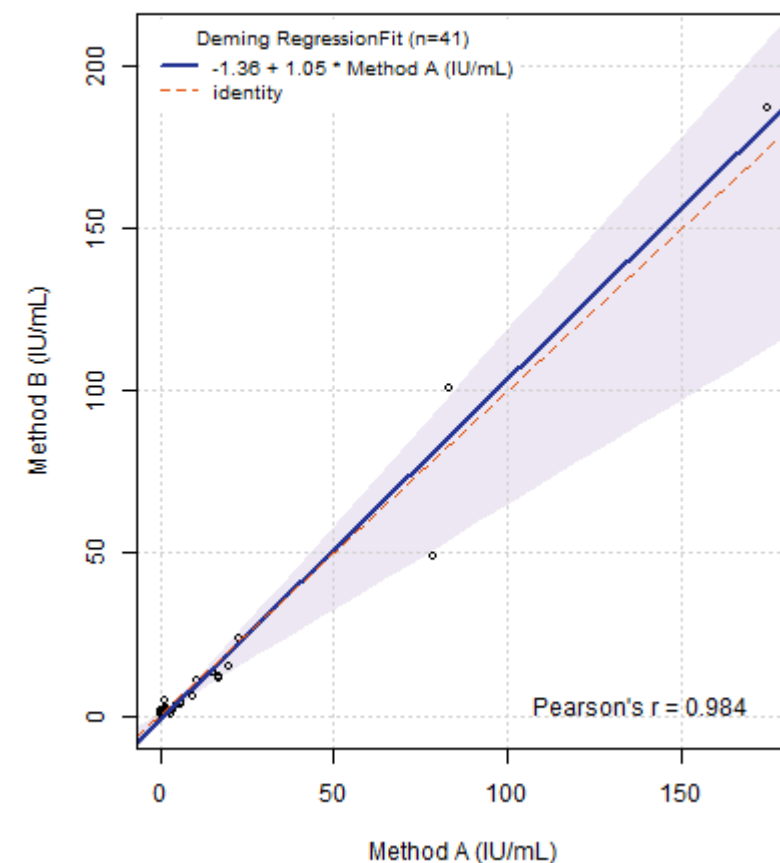
B.

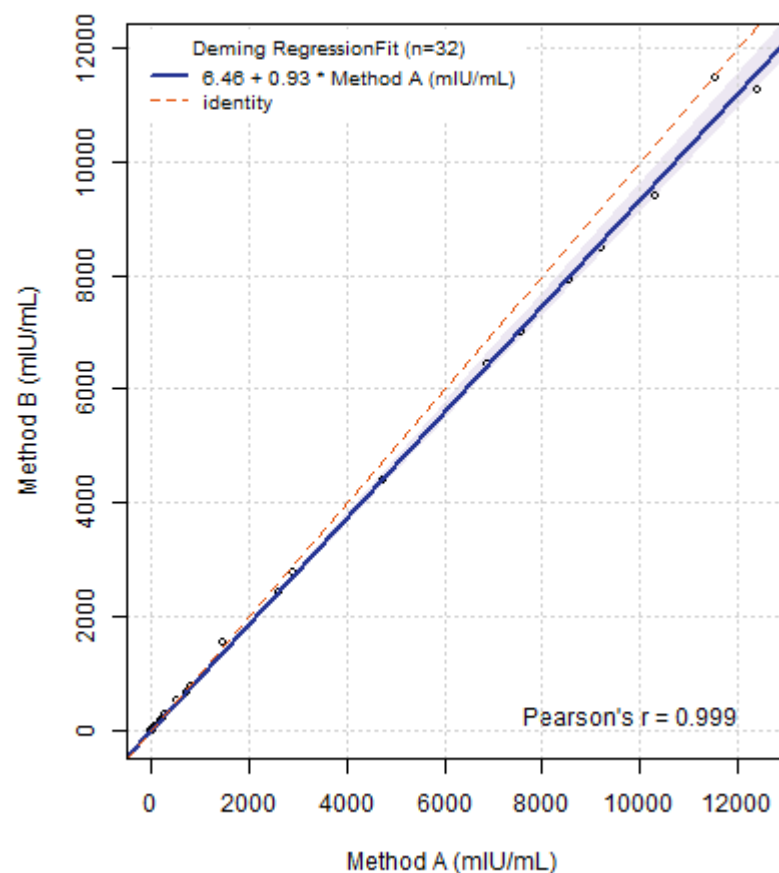
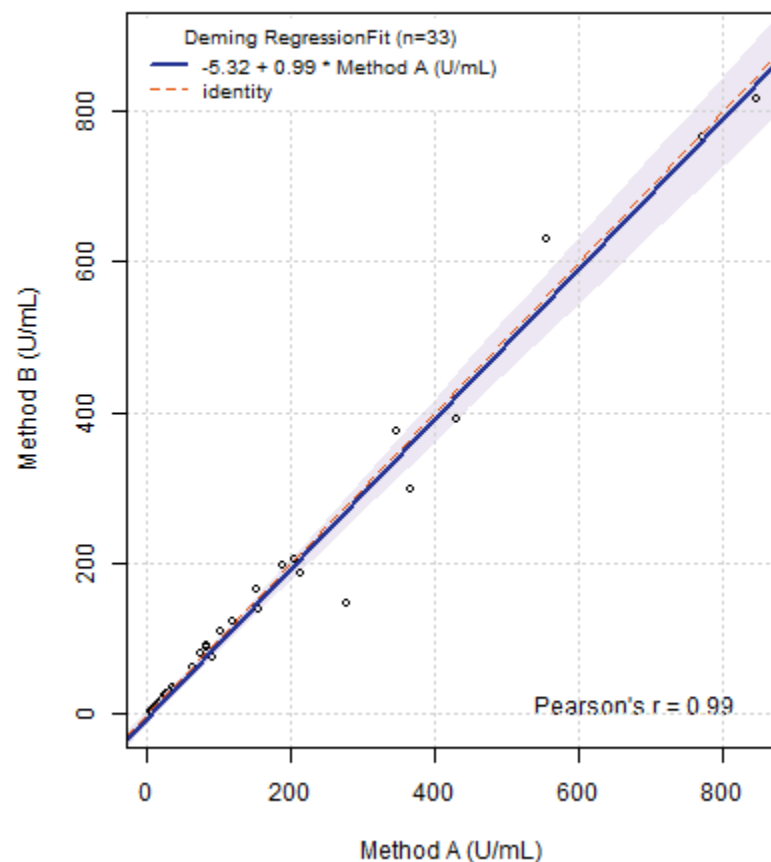
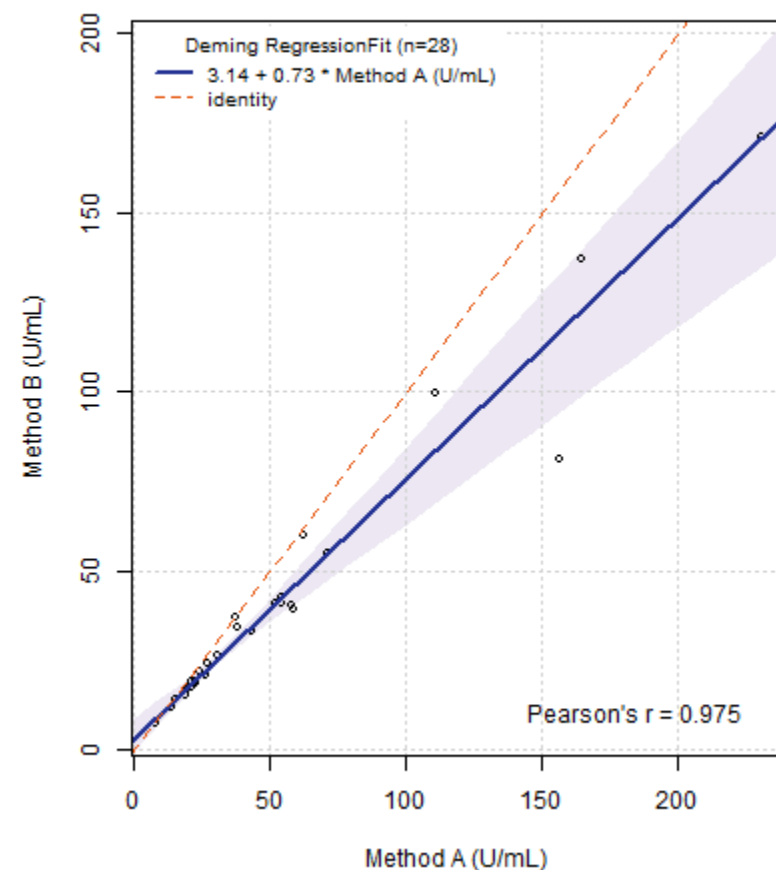


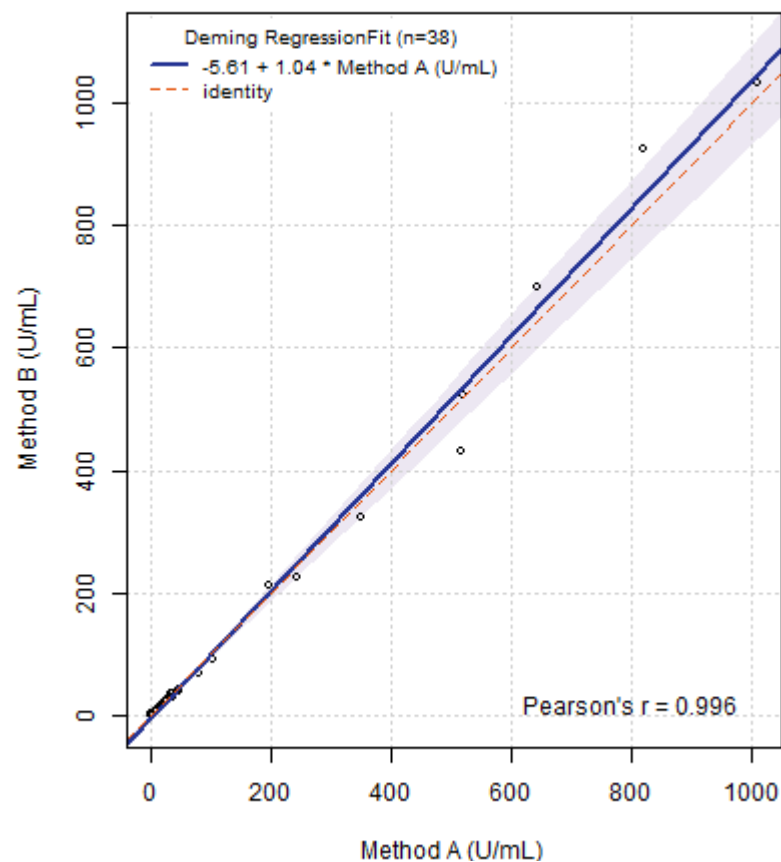
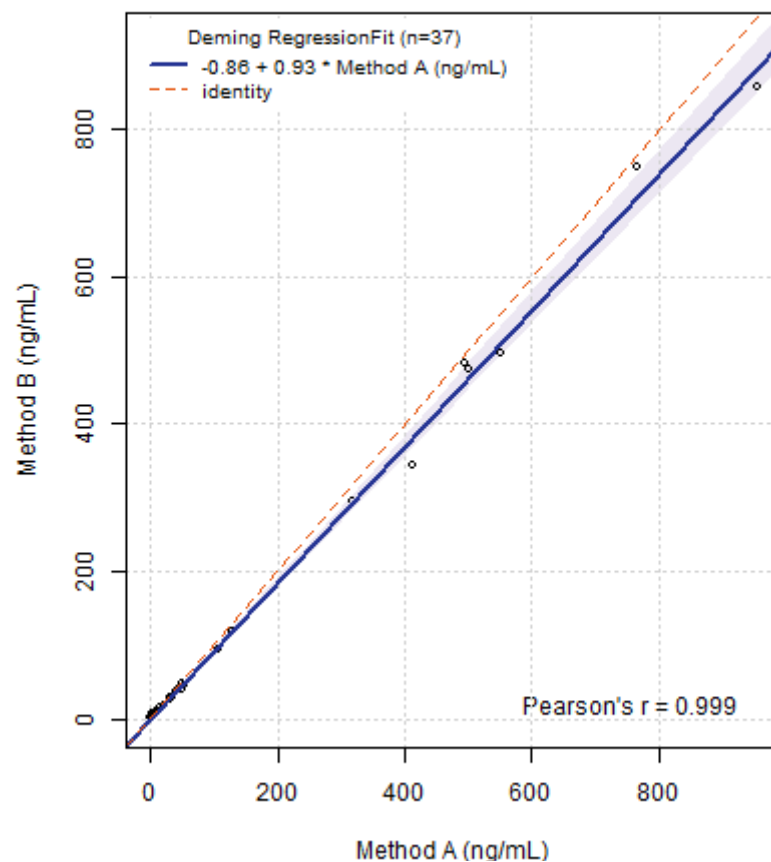
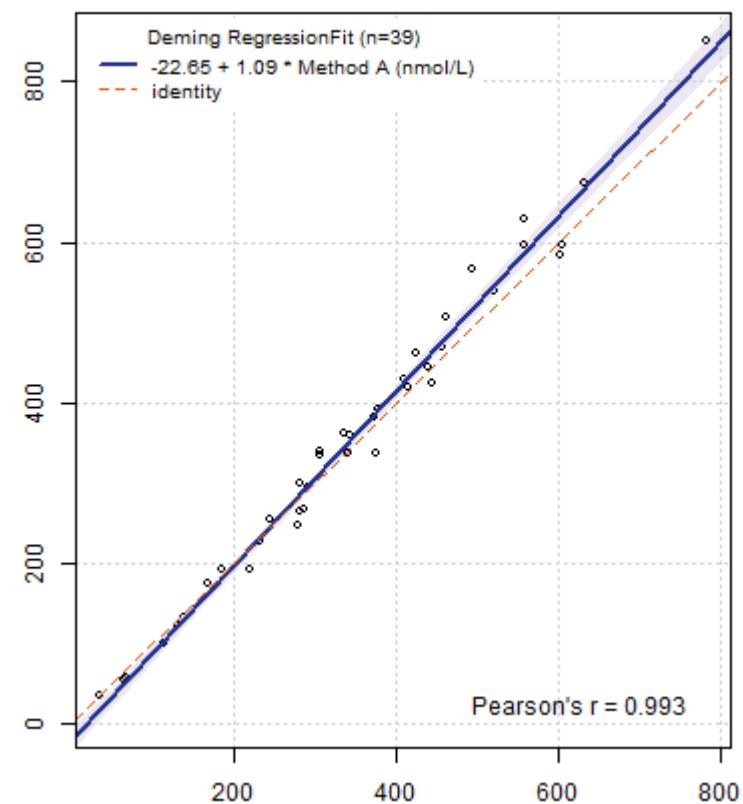
Supplemental Figure 6: Assay linearity measured using five-part patient linearity series. All data points are presented as the average of triplicate measurements. Line of best fit was determined by linear regression for **A)** SHBG, **B)** Total PSA.

A.**Anti-CCP****B.****Anti-TPO**

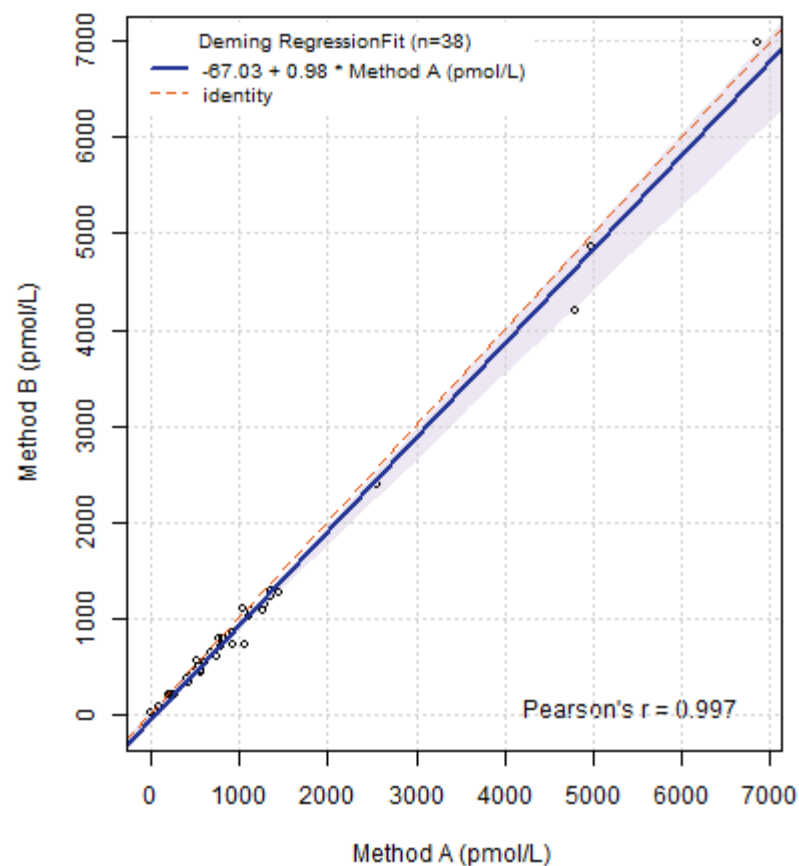
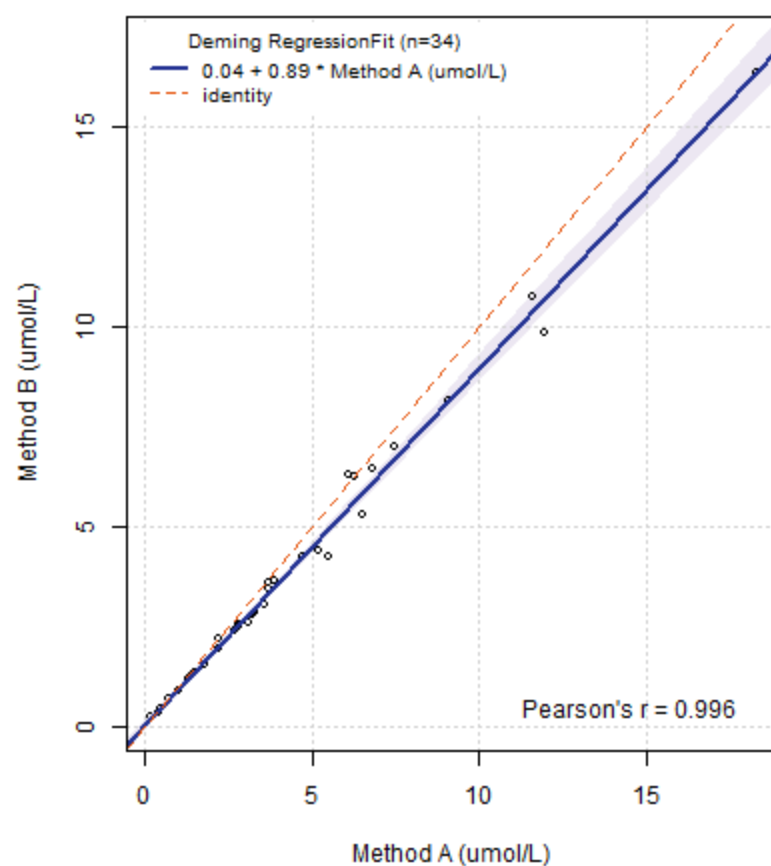
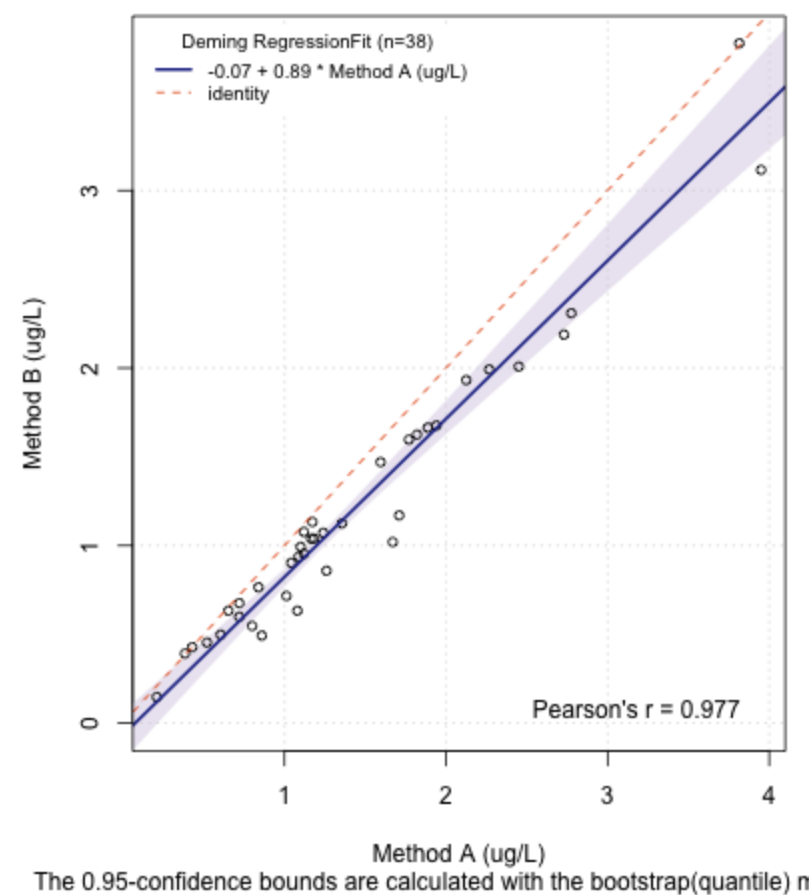
The 0.95-confidence bounds are calculated with the bootstrap(quantile) n

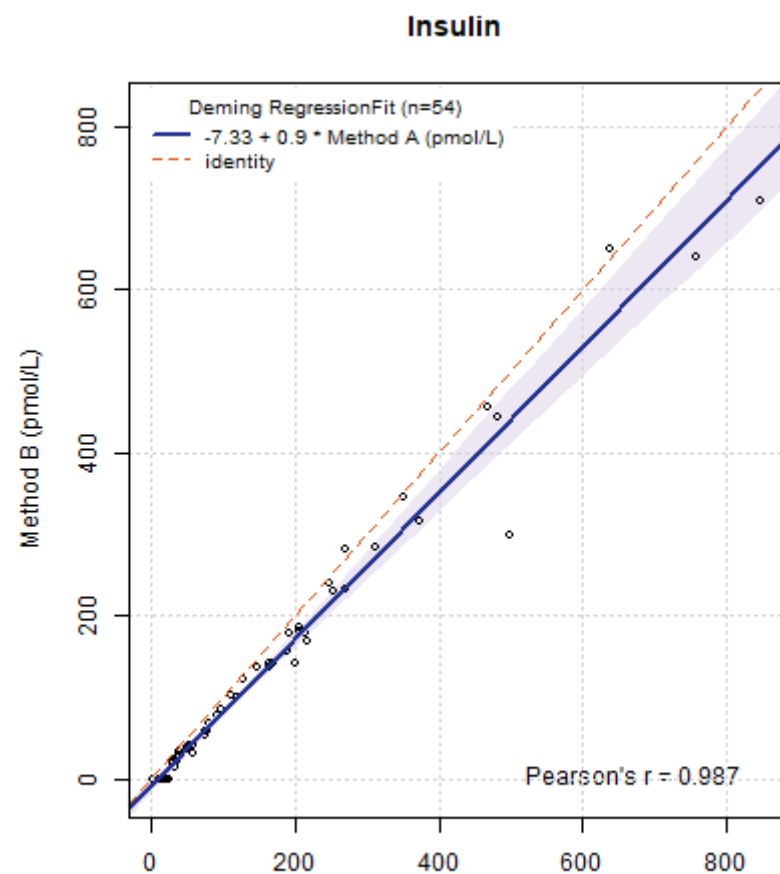
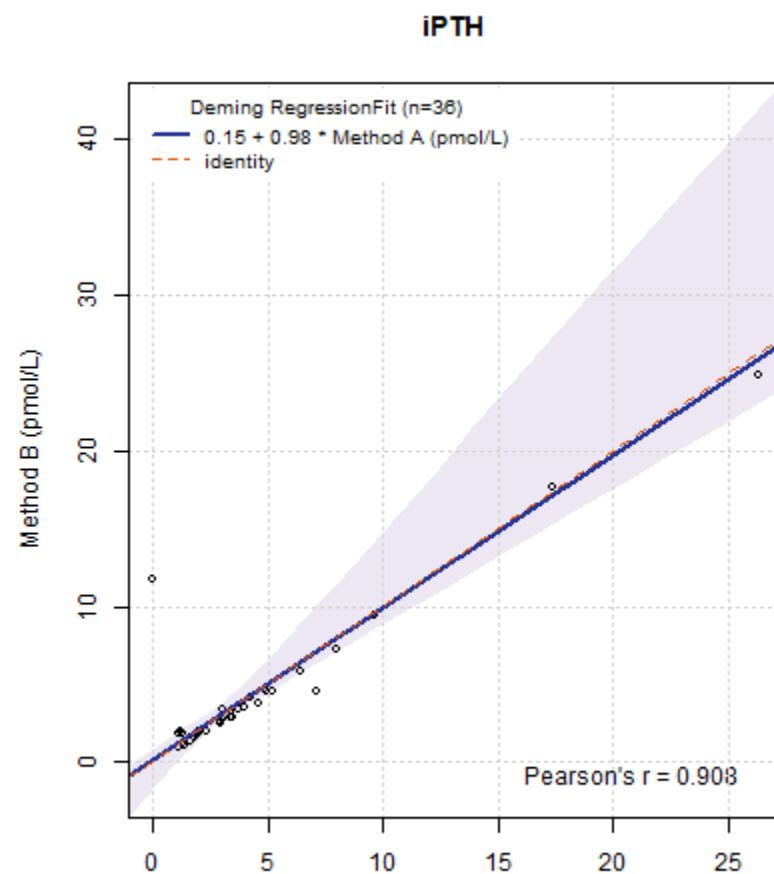
C.**Anti-Tg**

A.**Beta HCG****B.****CA 12-5****C.****CA 15-3**

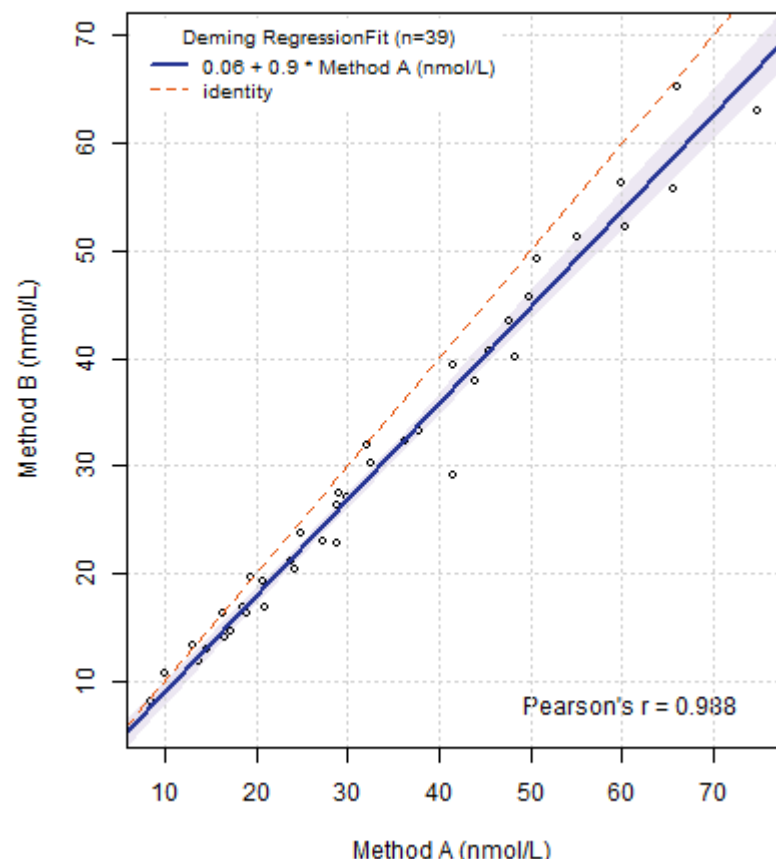
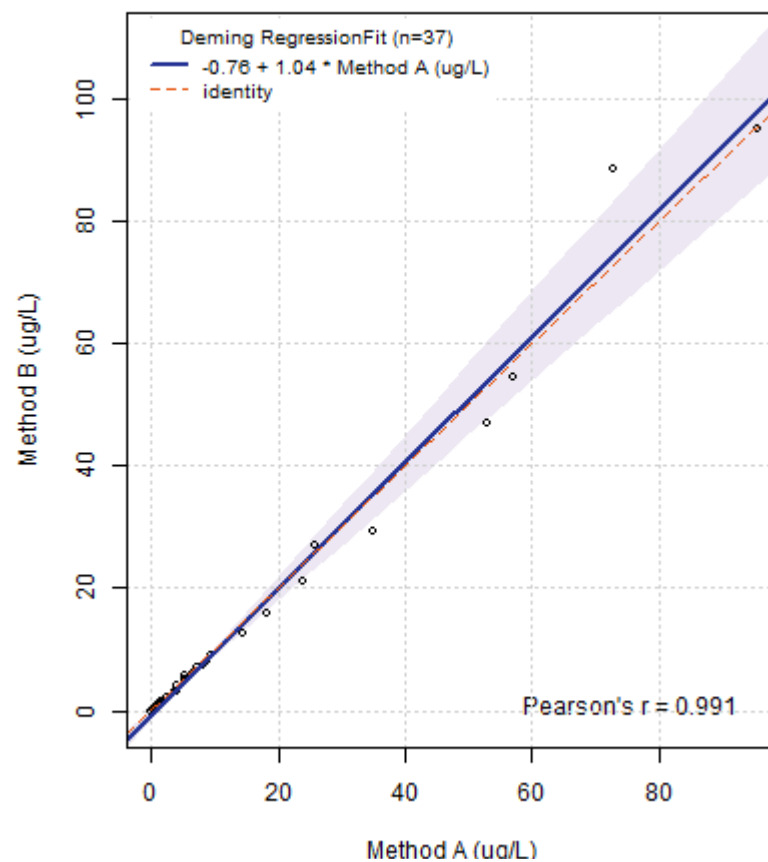
A.**CA 19-9****B.****CEA****C.****Cortisol**

Supplemental Figure 9: Method comparison analysis immunoassays measured by Abbott ARCHITECT (x-axis) and Alinity (y-axis) systems. The dashed red line indicates the line of perfect agreement ($y=x$) and the solid blue line indicates the Deming regression line. **A)** CA 19-9, **B)** CEA, **C)** Cortisol.

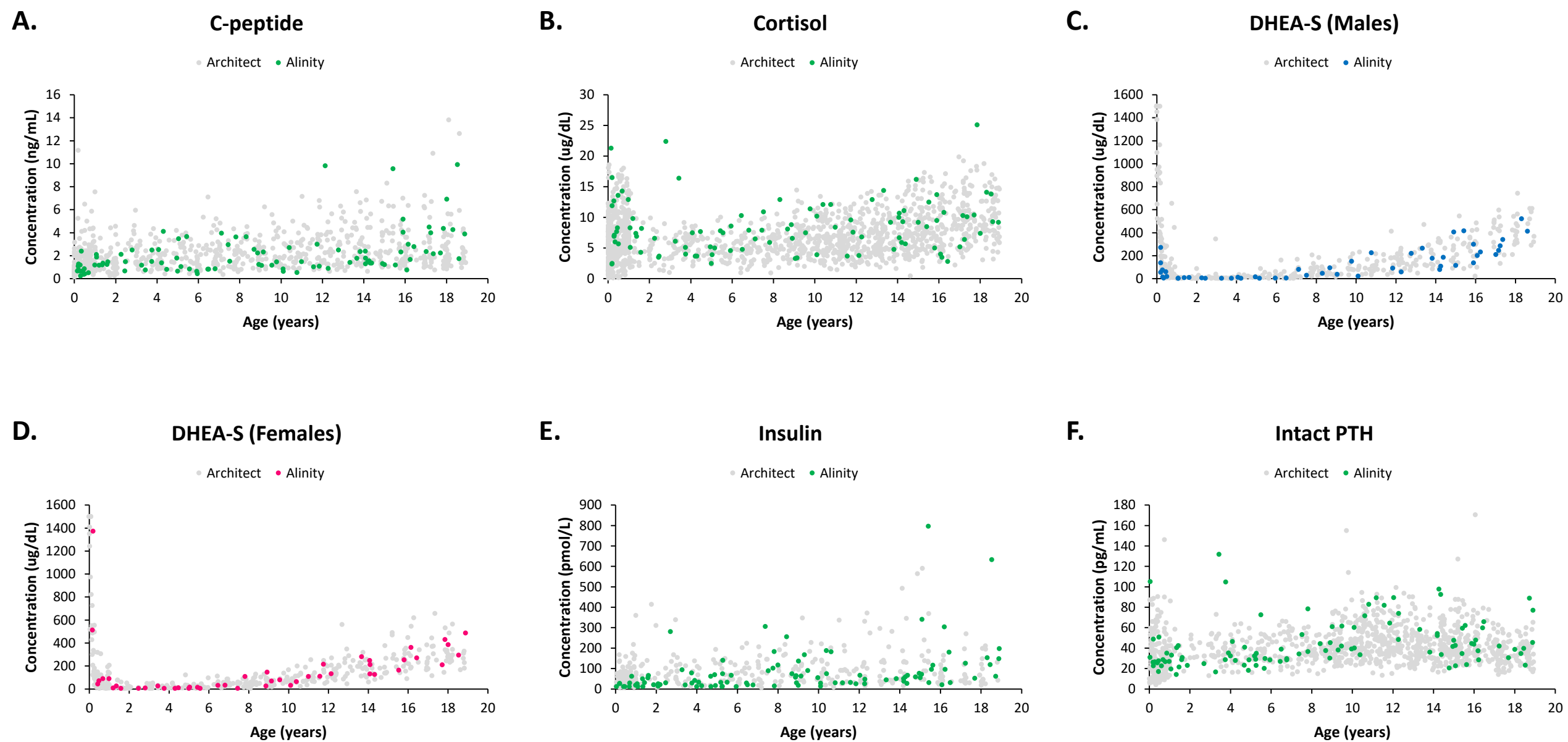
A.**C-peptide****B.****DHEA-S****C.****Free PSA**

A.**B.**

Supplemental Figure 11: Method comparison analysis immunoassays measured by Abbott ARCHITECT (x-axis) and Alinity (y-axis) systems. The dashed red line indicates the line of perfect agreement ($y=x$) and the solid blue line indicates the Deming regression line. **A)** Insulin, **B)** iPTH.

A.**SHBG****B.****Total PSA**

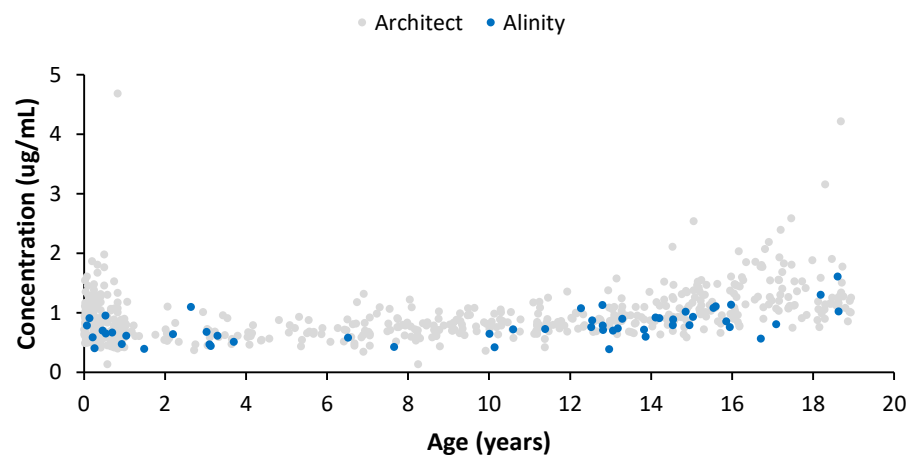
Supplemental Figure 12: Method comparison analysis immunoassays measured by Abbott ARCHITECT (x-axis) and Alinity (y-axis) systems. The dashed red line indicates the line of perfect agreement ($y=x$) and the solid blue line indicates the Deming regression line. **A)** SHBG, **B)** Total PSA.



Supplemental Figure 13: Pediatric reference value distributions for select assays in conventional units; A) C-peptide, B) Cortisol, C) DHEA-S (males), D) DHEA-S (females), E) Insulin, F) Intact PTH. Grey represents previous ARCHITECT CALIPER values; green represents new Alinity CALIPER values, blue and pink represent new sex-specific Alinity CALIPER values (blue: males, pink: females).

A.

Homocysteine (Males)



B.

Homocysteine (Females)

