

Pilot study of different GRN ELISAs

To examine the relationship between PGRN concentrations obtained from different ELISA types, protein levels from 40 different samples were measured using three different vendors (AdipoGen, BioVendor and R&D Pharmaceuticals).

Median concentrations and their range for GRN+ carriers (n=10), non-GRN FTD (n=22) and healthy controls (n=8) were found and tabulated (table 1).

While significant differences in medians were observed between each subgroup ($p < 0.05$; fig. 1), the extent to which the values correlated with one another was evaluated using Spearman rank analysis (fig. 2).

Analysis revealed a strong correlation within the assay types ($p < 0.05$), with the correlation between AdipoGen and BioVendor being the strongest ($r^2 = 0.9$), and R&D Pharmaceuticals showed a relatively strong correlation between the other two assays with $r^2 = 0.7$.

ELISA Kit	PGRN Concentrations (ng/ml)		
	<i>GRN+ Carriers (n=10)</i>	<i>FTD No GRN (n=22)</i>	<i>Healthy Control (n=8)</i>
Adipogen (IQR)	25.9 (22.6-31.6)	80.8 (71-97.4)	90.9 (87.6-103.9)
BioVendor (IQR)	11.2 (10.0-12.1)	32.5 (25.9-42.6)	39.7 (33.8-45.7)
R&D Pharmaceuticals (IQR)	15.5 (1.6-47.6)	63.6 (57.1-70.2)	65.9 (62.5-75.6)

Table 1 PGRN concentrations obtained using different ELISA kits obtained from 40 plasma samples. Concentrations presented as medians, IQR = Interquartile range

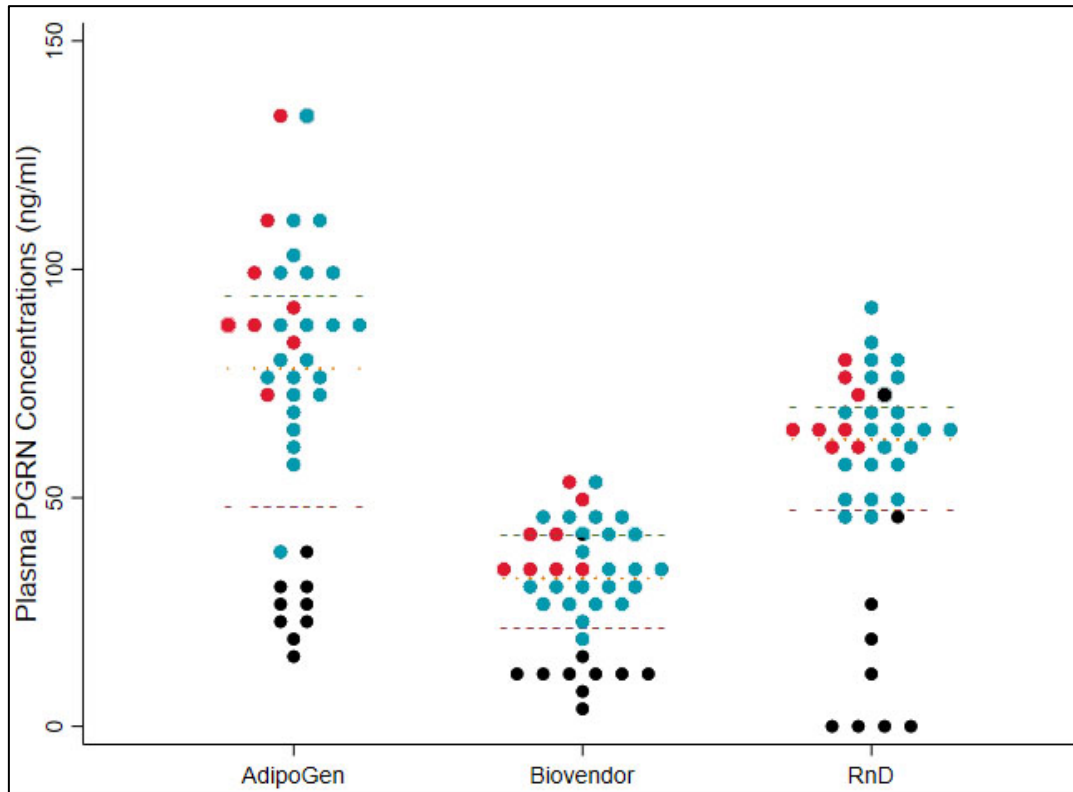


Figure 1. Distribution of plasma PGRN concentrations obtained using different ELISA assays from n=40 samples. Red = GRN+ mutation carriers, blue = non-GRN FTD cohort, black = healthy. Lines represent basic statistics, green = upper quartile, orange = median, red = lower quartile.

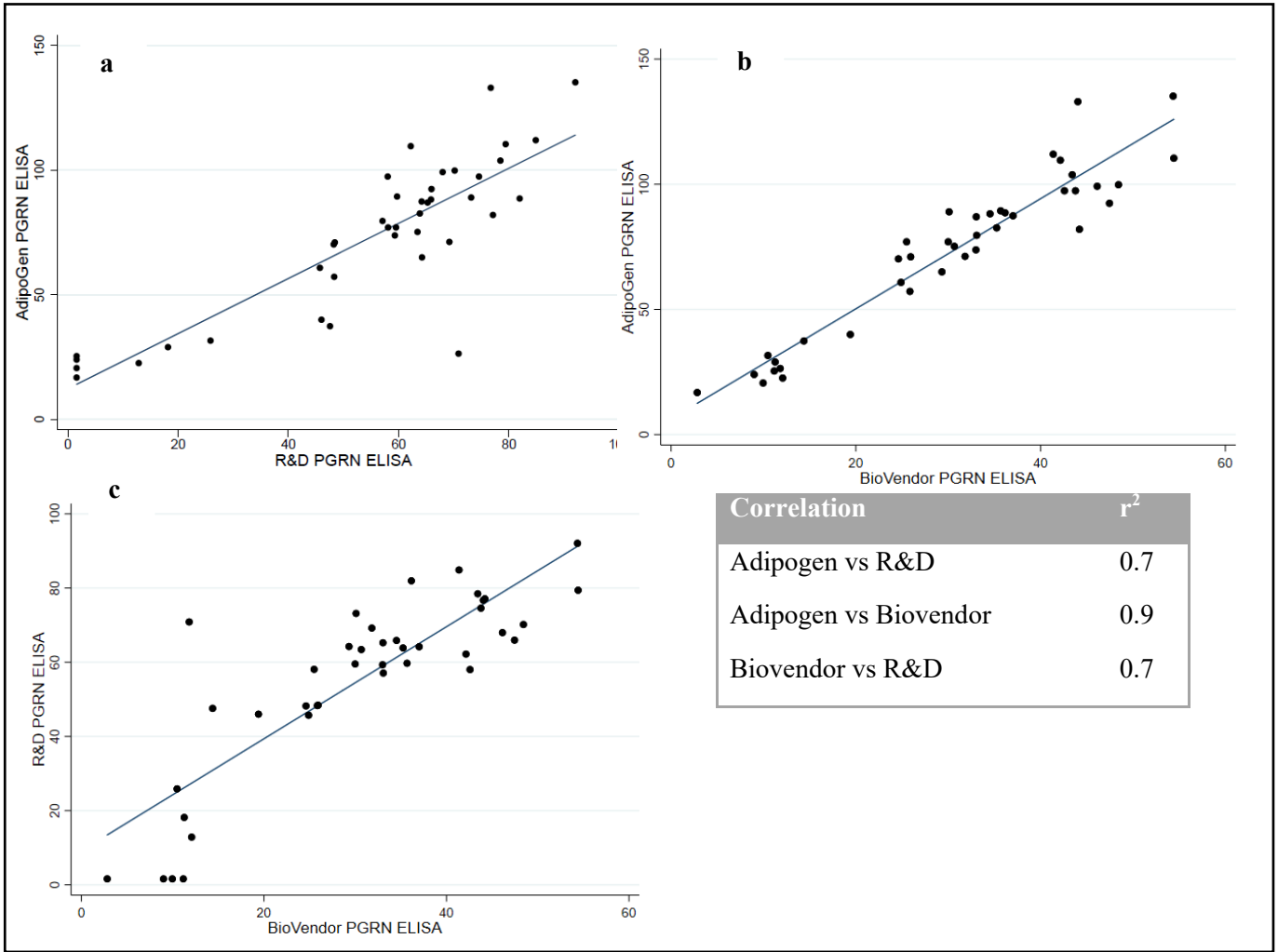


Figure 2. Spearman rank correlation analysis of PGRN concentration obtained from different ELISA assays. a) AdipoGen vs R&D $r=0.7$ b) Adipogen vs Biovendor $r= 0.9$, c) Biovendor vs R&D $r=0.7$. Significant correlation ($p<0.05$) was observed for all correlations.