Supplemental Material

Patterns of plasma glucagon dynamics do not match metabolic phenotypes in young women

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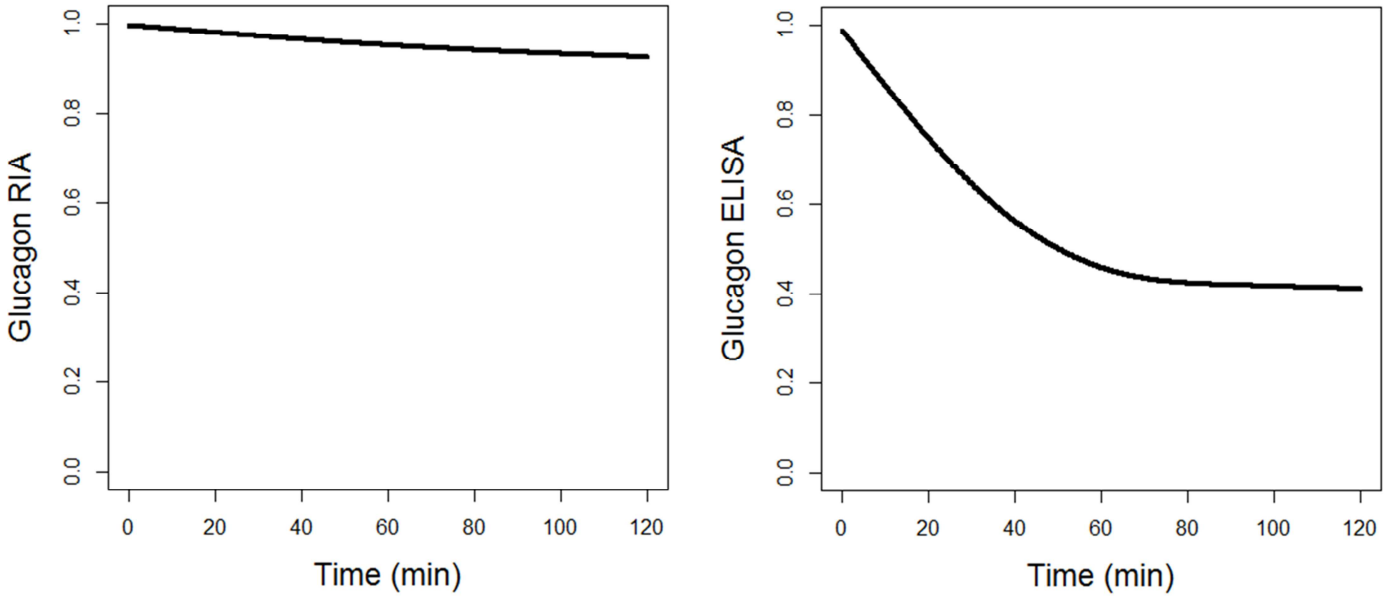
Supplemental Table 1: Comparison of glucagon values measured with RIA vs. ELISA (n=283); RIA: radioimmunoassay, ELISA: Enzyme-linked Immunosorbent Assay, GDM-NG: normoglycemic subjects at baseline after a pregnancy complicated by gestational diabetes; GDM-PGM: subjects after a pregnancy complicated by gestational diabetes with pathological glucose tolerance at baseline

	RIA				ELISA			
	total	**control**	**normoglycemic high-risk**	**prediabetes/diabetes**	**total**	**control**	**normoglycemic high-risk**	**prediabetes/diabetes**
Glucagon 0 min	1	1	1	1	1	1	1	1
Glucagon 30 min	0.95 (0.87-1.05)	0.94 (0.86-1.03)	0.95 (0.85-1.05)	0.98 (0.89-1.07)	0.58 (0.43-0.77)	0.53 (0.42-0.68)	0.59 (0.42-0.77)	0.68 (0.49-0.85)
Glucagon 60 min	0.90 (0.81-1.06)	0.90 (0.82-1.06)	0.91 (0.81-1.07)	0.90 (0.81-1.05)	0.38 (0.26-0.52)	0.34 (0.21-0.50)	0.40 (0.28-0.54)	0.43 (0.28-0.52)
Glucagon 90 min	0.90 (0.79-1.04)	0.91 (0.82-1.06)	0.89 (0.77-1.03)	0.89 (0.74-1.03)	0.36 (0.24-0.50)	0.33 (0.22-0.54)	0.38 (0.24-0.50)	0.36 (0.25-0.49)
Glucagon 120 min	0.89 (0.78-1.02)	0.94 (0.82-1.07)	0.89 (0.78-1.01)	0.87 (0.73-0.95)	0.35 (0.25-0.49)	0.39 (0.23-0.53)	0.36 (0.26-0.50)	0.32 (0.25-0.43)

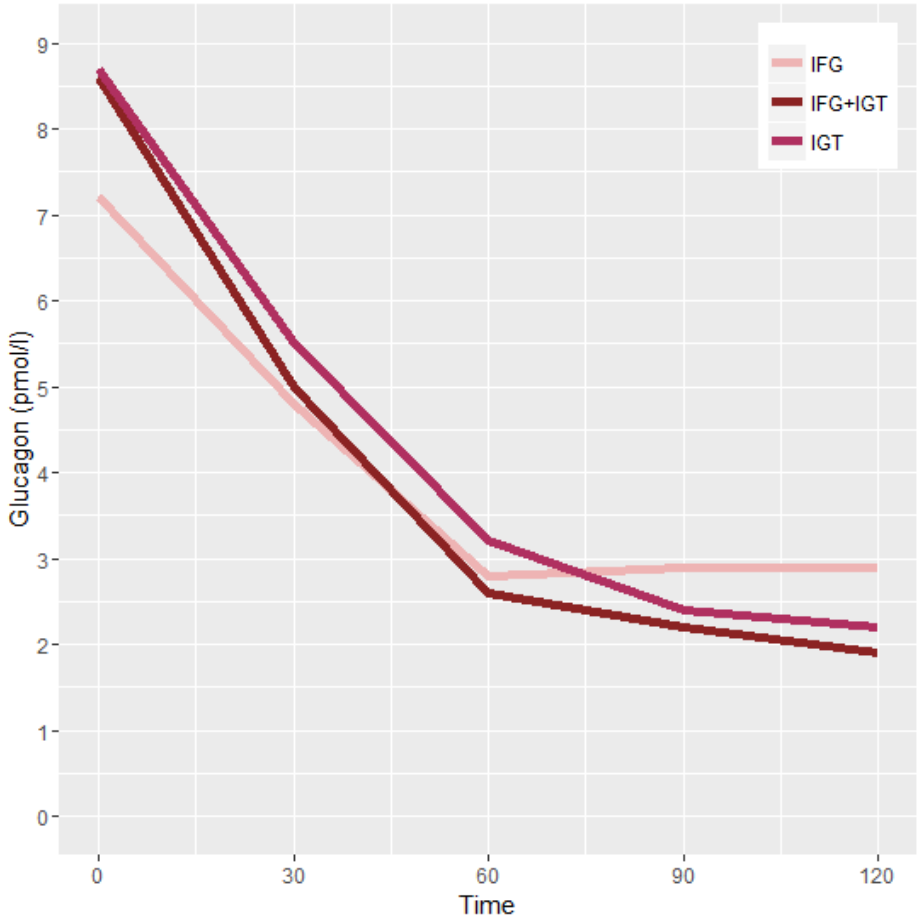


Supplemental Fig. 1: Comparison of glucagon curves measured with RIA vs. ELISA (n=283); RIA: radioimmunoassay, ELISA: enzyme-linked immunosorbent assay.

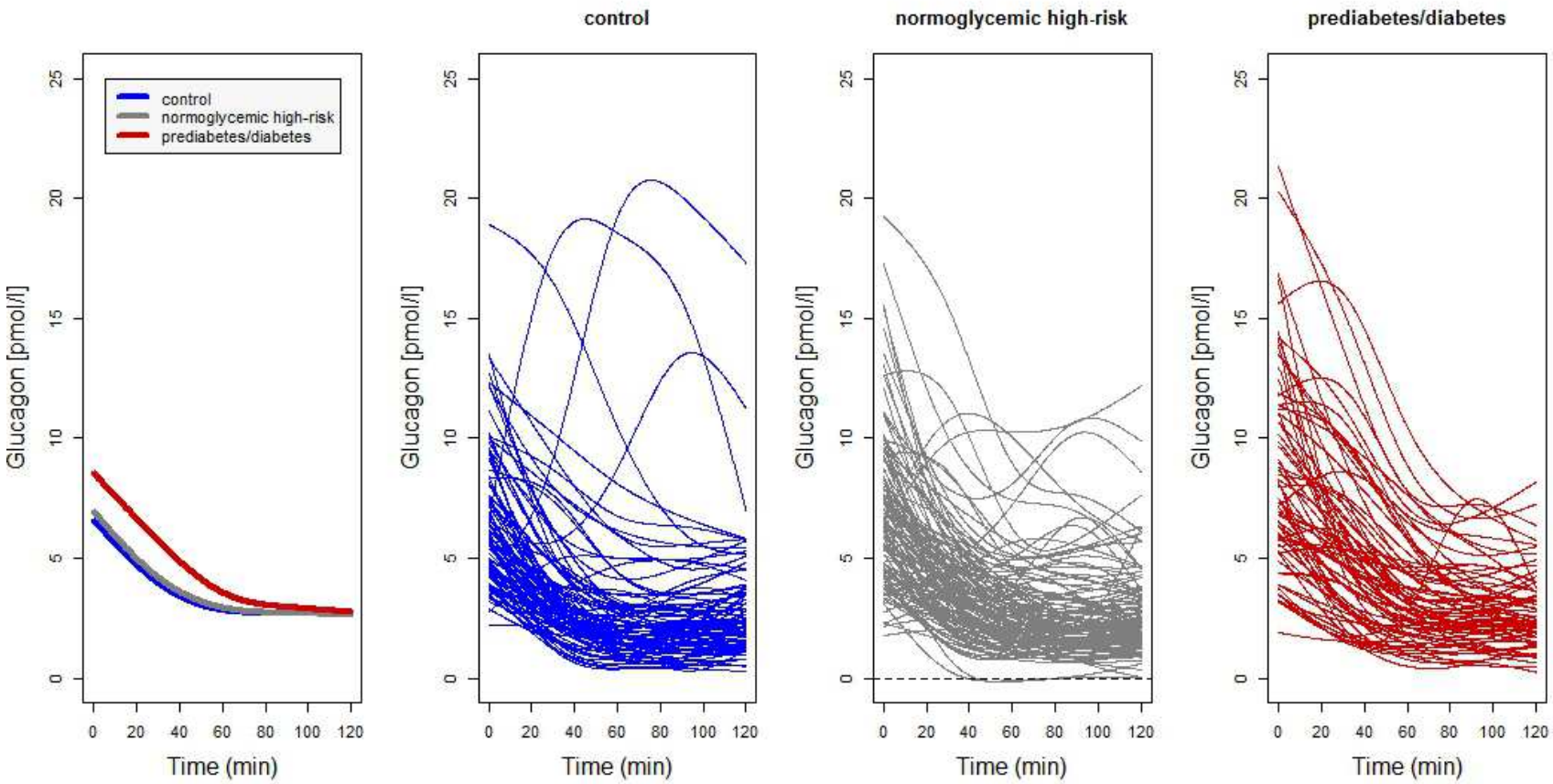
Supplemental Table 2: Fasting plasma glucagon and glucagon suppression indices during oGTT in different groups of prediabetes (isolated IFG, IGT, and combined IFG+IGT). IFG: impaired fasting glucose, IGT: impaired glucose tolerance.

	IFG	IGT	IFG+IGT	p-value
n	31	22	12	
Glucagon 0 min [pmol/l]	7.2 (5.3-9.6)	8.7 (6.6-11.7)	8.6 (5.8-11.1)	0.2503
Early suppression glucagon (0-30) [%]	28.0 (11.9-65.5)	34.0 (17.4-51.7)	38.4 (17.6-52.1)	0.7273
Late suppression glucagon (30-120) [%]	41.8 (16.5-50.4)	58.1 (43.1-71.3)†	58.9 (46.1-69.6)†	0.0004
Suppression glucagon (0-120) [%]	58.9 (39.8-70.2)	71.2 (68.4-81.0)†	73.7 (63.8-81.0)†	0.0009

† in post hoc test significant vs. IFG



Supplemental Fig. 2: Plasma glucagon during oGTT in different groups of prediabetes (isolated IFG: light pink; isolated IGT: red; combined IFG+IGT: brown). IFG: impaired fasting glucose, IGT: impaired glucose tolerance.



Supplemental Fig. 3: Glucagon curves stratified by risk group (blue = controls, gray = normoglycemic high-risk, red = prediabetes/diabetes) and subjects (each curve indicates one subject).