#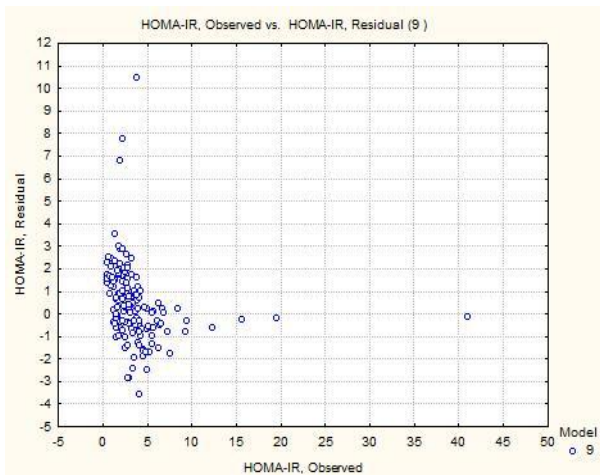# ES Complex clinical investigation: Insulin resistance Screening Test (as reference HOMA-IR > 4.69) : Correlation/ Specificity and Sensitivity

Chaim E. A and Gobato R.C. New Approach from physiological data algorithms for pre diabetes and diabetes screening in an obese patient's population to use on a larger scale. Unicamp University 2011.
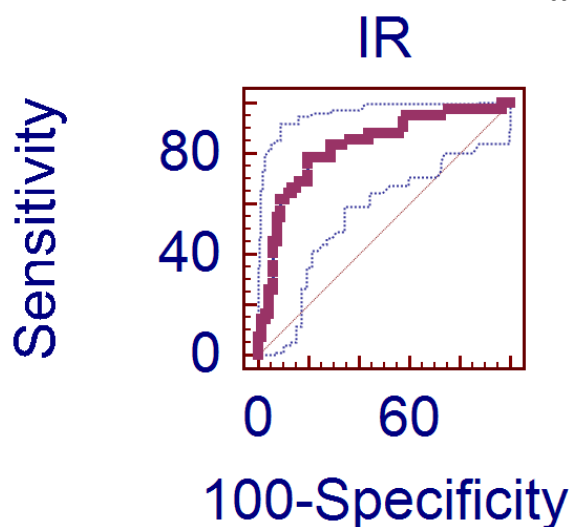
Results for patients BMI > = 30 Neural Network

	Regression (
	HOMA-IR.9
Data Mean	5.370401
Data S.D.	5.663513
Error Mean	0.022437
Error S.D.	1.529719
Abs E. Mean	1.035220
S.D. Ratio	0.270101
Correlation	0.963160

The correlation between HS-IR (HS-Insulin Resistance) and HOMA-IR (HOMA-Insulin Resistance) was r=0.96 (p < 0.0001).

Results for patients BMI< 30 IR = FM/*LF/HF
Coefficient Age/gender

Variable	IR
Classification variable	diagnosis
Sample size	108
Positive group : diagnosis = 1	42
Negative group : diagnosis = 0	66
Disease prevalence (%)	38.9
Area under the ROC curve (AUC)	0.826
Standard Error [a]	0.0426
95% Confidence Interval [b]	0.741 to 0.892
z statistic	7.650
Significance level P (Area=0.5)	<0.0001

[a] DeLong et al., 1988
[b] Binomial exact

Sensitivity 78.57 % Specificity 80.3 % Cutoff > 2.9