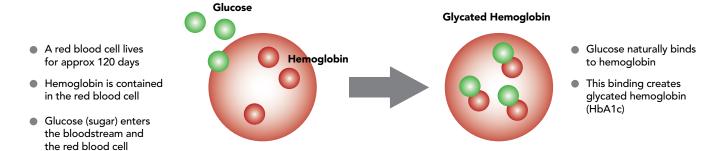
# FLUORESCENT QUENCHING TECHNOLOGY

- Quo-Test uses fluorescence quenching combined with boronate affinity technology to measure glycated hemoglobin (HbA1c)
- The glycated hemoglobin binds to a boronate fluorescent conjugate causing quenching of the signal
- · Quenching is measured by a sensitive fluorimeter



### GLYCATED HEMOGLOBIN (HbA1c) EXPLAINED



#### QUO-TEST TECHNOLOGY

- The Quo-Test patented reagent has a fluorescent signal
- The reagent fluoresces strongly when unattached



- Fluorescence quenches when attached to HbA1c
- The fluorescence quenching observed is related to the quantity of HbA1c in the sample
- Quo-Test can express the results in both DCCT and IFCC values



SCIENCE MADE SIMPLE

## IMPRECISION STUDIES

- 20 day imprecision study
- CLSI guidelines
- High and low sample run in duplicate every day for 20 consecutive days

	Low High sample % CV	
TOTAL IMPRECISION	2.82%	2.49%
WITHIN RUN IMPRECISION	2.64%	1.89%
BETWEEN DAY IMPRECISION	1.40%	0.86%
BETWEEN RUN IMPRECISION	0.00%	1.37%



### **CORRELATION STUDIES**

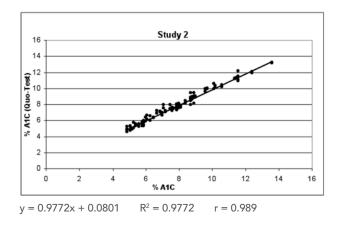
Summary of the results for testing 98 patient samples on the Quo-Test A1c assay, a competitor desktop analyser and a reference laboratory auto-analyser.

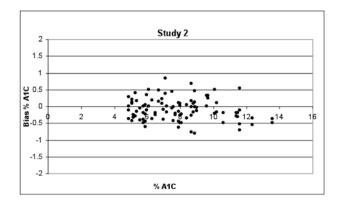
	Predicate device	Sample N =	Quo-Test A1c Correlation R =	Quo-Test Bias % A1c (DCCT)	Quo-Test A1c Precision % CV
STUDY 1	Desktop analyser	50	0.971	-0.03	2.80
	Laboratory auto-analyser	50	0.984	-0.30	2.80
STUDY 2	Desktop analyser	48	0.980	-0.09	2.90
	Laboratory auto-analyser	48	0.989	-0.10	2.90

CLSI Clinical and Laboratory Standards Institute
DCCT Diabetes Complications and Control Trial

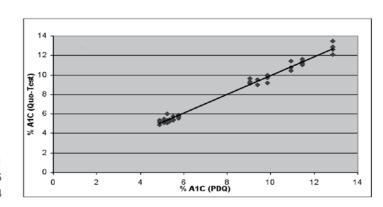


# QUO-TEST VS LABORATORY AUTO-ANALYSER



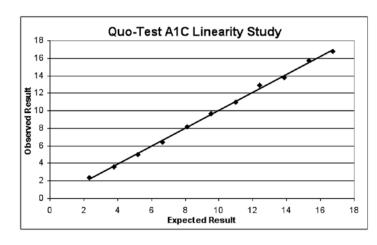


# QUO-TEST VS BORONATE AFFINITY HPLC ANALYSER



y = 0.9699x + 0.2551  $R^{2} = 0.9885$  r = 0.994

## QUO-TEST LINEARITY



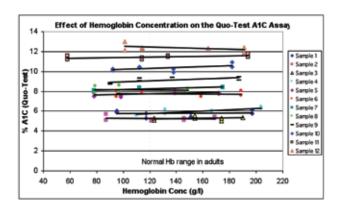
y = 1.0275x - 0.2269  $R^2 = 0.9983$  r = 0.999



SCIENCE MADE SIMPLE

## NO EFFECT OF HEMOGLOBIN CONCENTRATION

- 12 venous samples
- Hemoglobin range from 58 to 204 g/l

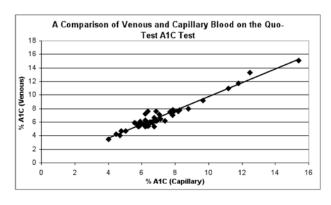


### HEMOGLOBIN VARIANTS

The Quo-Test A1c test was found to be unaffected by the following hemoglobin variants:

- Hb S, also know as sickle cell anemia (heterozygote and homozygote)
- Hb AC, Hb AD, Hb AE, Hb AJ, Hb CC, Hb SC, Hb EE
- B-thalassemia
- Elevated fetal hemoglobin: Up to 30%

### CAPILLARY VS VENOUS BLOOD



y = 1.0235x - 0.4811  $R^2 = 0.9431$  r = 0.97

