

## **On-Line Appendix**

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**On-Line Table 1. Other fasting glyceic, meal tolerance test, and lipid efficacy endpoints**

Parameter	N	Baseline Mean (SD)	Week 24 Mean (SD)	LS Mean Change from Baseline (95% CI)
<b>Other fasting glyceic parameters</b>				
Fasting serum proinsulin (pmol/L)				
Placebo	169	25.2 (20.8)	27.5 (25.3)	3.5 (-1.1, 8.1)
Sitagliptin 100 mg q.d.	398	25.3 (25.8)	25.9 (30.3)	1.6 (-1.9, 5.2)
HOMA-IR				
Placebo	196	5.1 (3.5)	5.1 (3.2)	0.0 (-0.7, 0.7)
Sitagliptin 100 mg q.d.	418	5.1 (4.4)	5.2 (5.5)	0.0 (-0.6, 0.6)
<b>Meal tolerance test parameters</b>				
2-hour post-meal plasma glucose (mmol/L)				
Placebo	182	15.1 (3.7)	14.6 (4.2)	-0.6 (-1.2, -0.1)
Sitagliptin 100 mg q.d.	387	15.2 (4.1)	11.9 (3.4)	-3.4 (-3.9, -3.0)***
2-hour post-meal insulin (pmol/L)				
Placebo	169	376.8 (258.6)	345.6 (278.4)	-37.2 (-73.2, -1.2)
Sitagliptin 100 mg q.d.	362	379.8 (283.8)	382.8 (273.0)	-1.2 (-30.0, 27.6)*
2-hour post-meal C-peptide (nmol/L)				
Placebo	176	2.4 (0.9)	2.4 (1.0)	-0.0 (-0.2, 0.1)
Sitagliptin 100 mg q.d.	375	2.4 (1.0)	2.6 (1.0)	0.2 (0.1, 0.3)***
Glucose AUC (mmol*hr/L)				
Placebo	179	27.7 (5.7)	27.1 (6.7)	-0.6 (-1.5, 0.4)
Sitagliptin 100 mg q.d.	377	27.4 (6.3)	22.4 (5.4)	-5.1 (-5.8, -4.4)***
Insulin AUC (pmol*hr/L)				
Placebo	158	546.6 (337.2)	499.8 (309.0)	-58.2 (-103.2, -13.8))
Sitagliptin 100 mg q.d.	319	561.0 (364.2)	572.4 (341.4)	7.2 (-28.8, 42.6)**
C-peptide AUC (nmol*hr/L)				
Placebo	176	3.5 (1.3)	3.5 (1.3)	-0.0 (-0.2, 0.2)
Sitagliptin 100 mg q.d.	360	3.4 (1.3)	3.8 (1.4)	0.3 (0.2, 0.5)***
Insulin AUC/glucose AUC ratio				
Placebo	155	20.8 (15.0)	20.0 (14.4)	-1.1 (-3.1, 1.1)
Sitagliptin 100 mg q.d.	308	22.1 (15.3)	27.2 (18.1)	5.2 (3.5, 6.9)***

\*p<0.050 vs. placebo; \*\*p<0.010 vs. placebo; \*\*\*p<0.001 vs. placebo

To convert glucose from mmol/L to mg/dL, divide by 0.05551.

**On-Line Table 1. (cont.) Other fasting glycemc, meal tolerance test, and lipid efficacy endpoints**

Parameter	N	Baseline Mean (SD)	Week 24 Mean (SD)	LS Mean Change <sup>†</sup> from Baseline (95% CI)
<b>Lipid parameters</b>				
TC (mmol/L)				
Placebo	206	4.68 (0.98)	4.82 (0.98)	4.7 (2.1, 7.3)
Sitagliptin 100 mg q.d.	429	4.57 (0.92)	4.62 (0.97)	1.9 (-0.2, 3.9)*
TG (mmol/L)				
Placebo	206	2.10 (1.44)	2.32 (1.86)	24.6 (16.8, 32.3)
Sitagliptin 100 mg q.d.	429	1.97 (1.13)	1.89 (1.09)	7.7 (1.5, 14.0)***
HDL-C (mmol/L)				
Placebo	206	1.15 (0.28)	1.17 (0.30)	-0.7 (-2.8, 1.4)
Sitagliptin 100 mg q.d.	429	1.17 (0.28)	1.20 (0.29)	1.3 (-0.4, 3.0)*
LDL-C (mmol/L)				
Placebo	206	2.62 (0.81)	2.67 (0.84)	4.1 (-0.7, 8.9)
Sitagliptin 100 mg q.d.	429	2.53 (0.79)	2.58 (0.82)	3.3 (-0.6, 7.1)
Non-HDL-C (mmol/L)				
Placebo	206	3.53 (1.00)	3.65 (1.00)	7.5 (3.9, 11.1)
Sitagliptin 100 mg q.d.	429	3.41 (0.91)	3.43 (0.96)	2.7 (-0.2, 5.6)**
TG/HDL-C ratio				
Placebo	206	4.8 (4.9)	5.4 (6.3)	28.9 (20.0, 37.8)
Sitagliptin 100 mg q.d.	429	4.3 (3.4)	4.0 (3.2)	9.5 (2.3, 16.6)***

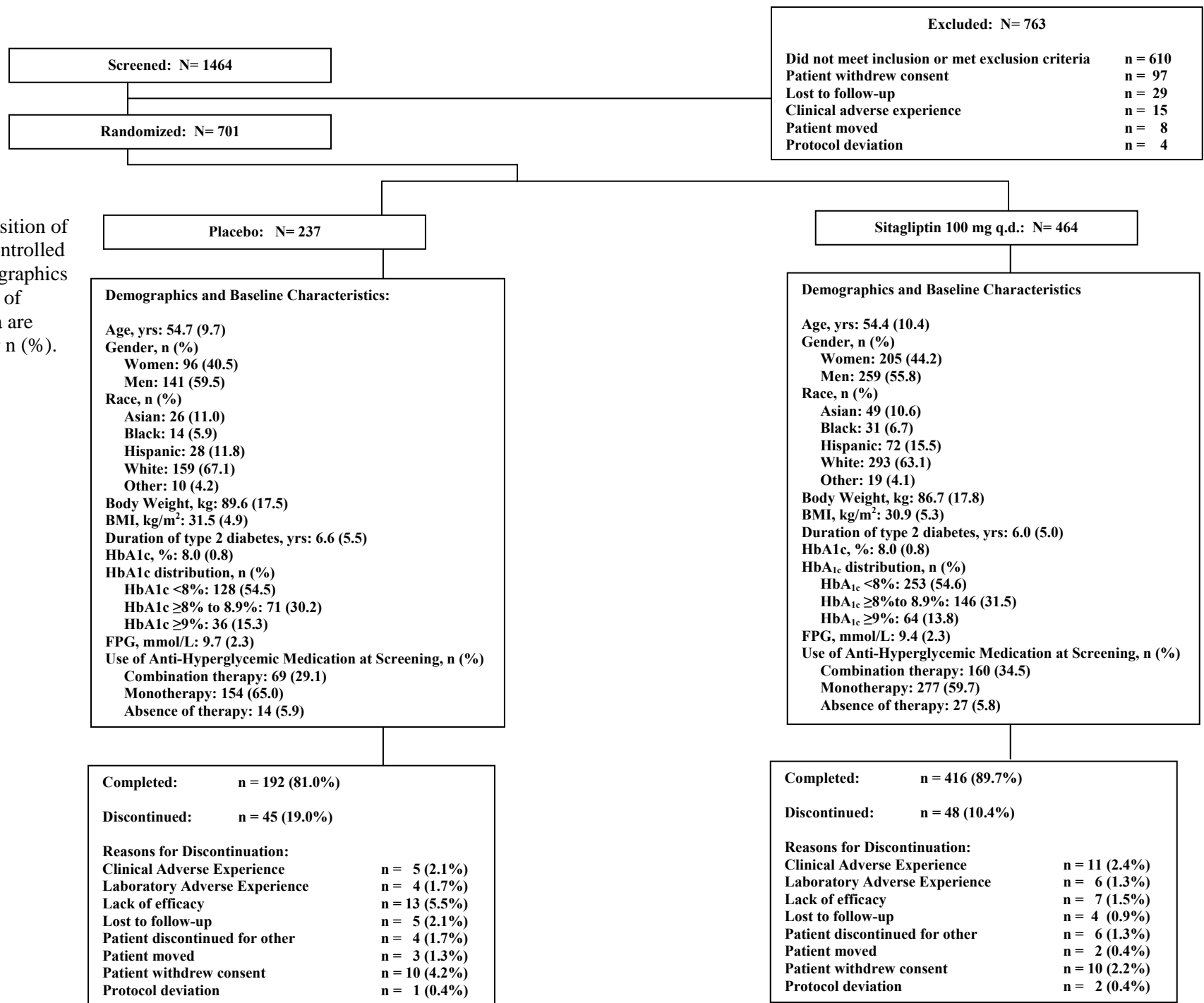
\*p<0.050 vs. placebo; \*\*p<0.010 vs. placebo; \*\*\*p<0.001 vs. placebo

<sup>†</sup>Results for lipid parameters (TC, TG, HDL-C, LDL-C, Non-HDL-C, and TG:HDL-C ratio) are expressed as LS mean percent change from baseline

**On-line Table 2. Clinical and Laboratory Adverse Experiences with Incidence  $\geq 2\%$**

Safety Parameter	Placebo	Sitagliptin 100 mg q.d.
	N=237 n (%)	N=464 n (%)
<b>Clinical Adverse Experiences</b>		
Gastroenteritis	5 (2.1)	4 (0.9)
Bronchitis	6 (2.5)	13 (2.8)
Influenza	13 (5.5)	20 (4.3)
Nasopharyngitis	8 (3.4)	19 (4.1)
Upper Respiratory Tract Infection	22 (9.3)	34 (7.3)
Cough	4 (1.7)	14 (3.0)
Urinary Tract Infection	3 (1.3)	11 (2.4)
Blood Glucose Increased	6 (2.5)	3 (0.6)
Hyperglycaemia	7 (3.0)	2 (0.4)
Arthralgia	1 (0.4)	14 (3.0)
Back Pain	6 (2.5)	15 (3.2)
Headache	7 (3.0)	13 (2.8)
Hypertension	6 (2.5)	7 (1.5)
<b>Laboratory Adverse Experiences</b>		
Fasting Blood Glucose Increased	10/230 (4.3)	1/459 (0.2)

Number of laboratory adverse experiences expressed as number of patients with laboratory adverse experience/ number of patients for whom the laboratory test was recorded postbaseline.



**On-Line Figure 1.** Disposition of patients for the placebo-controlled period, and baseline demographics and disease characteristics of randomized patients. Data are presented as mean (SD) or n (%).