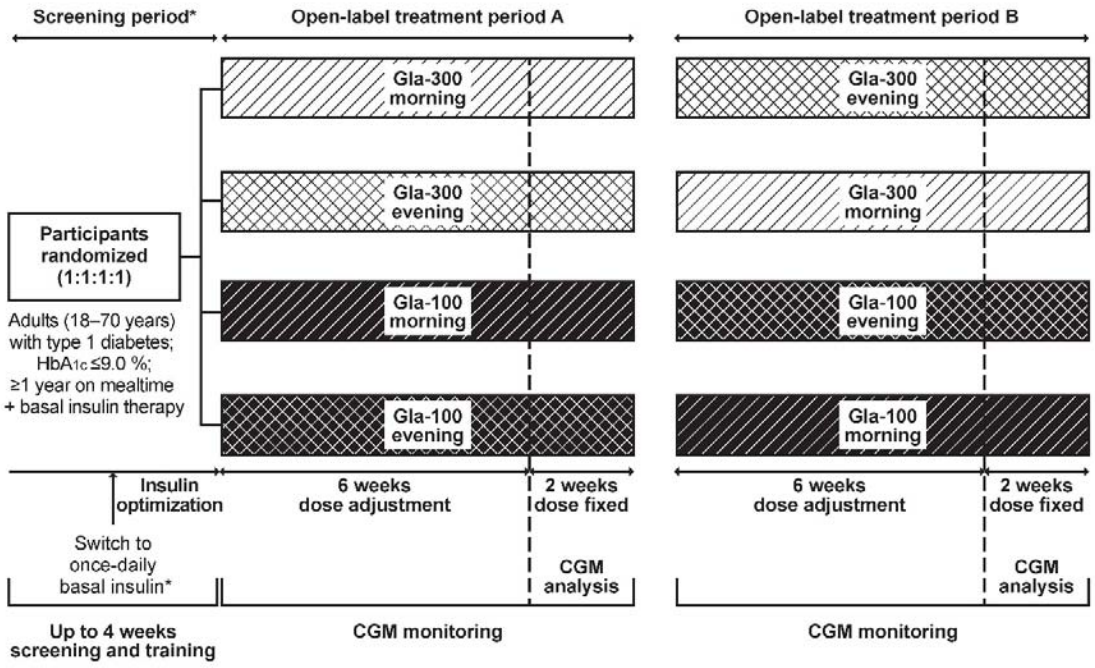
SUPPLEMENTARY DATA

Supplementary Figure SF1. Study design



*From screening (week −2), the basal insulin regimen for participants with twice-daily application was changed to once-daily basal insulin and CGM was initiated. CGM, continuous glucose monitoring.

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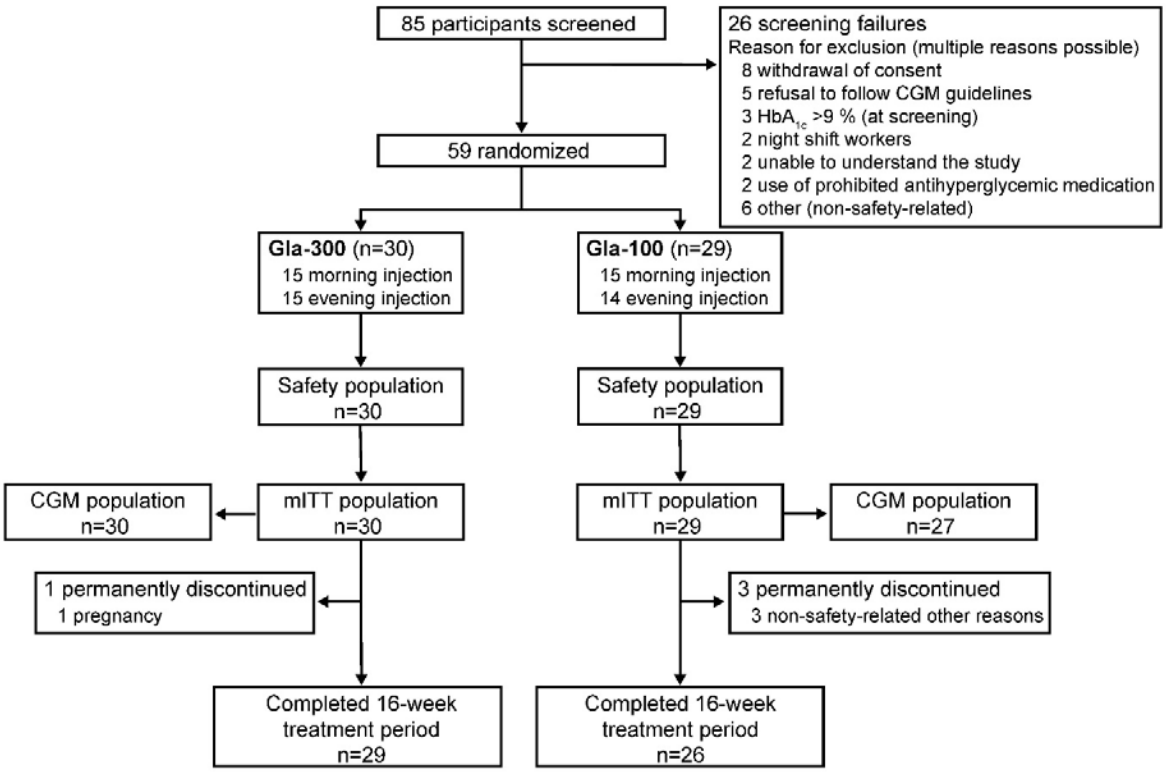
SUPPLEMENTARY DATA

Supplementary Figure SF2. Participant flow



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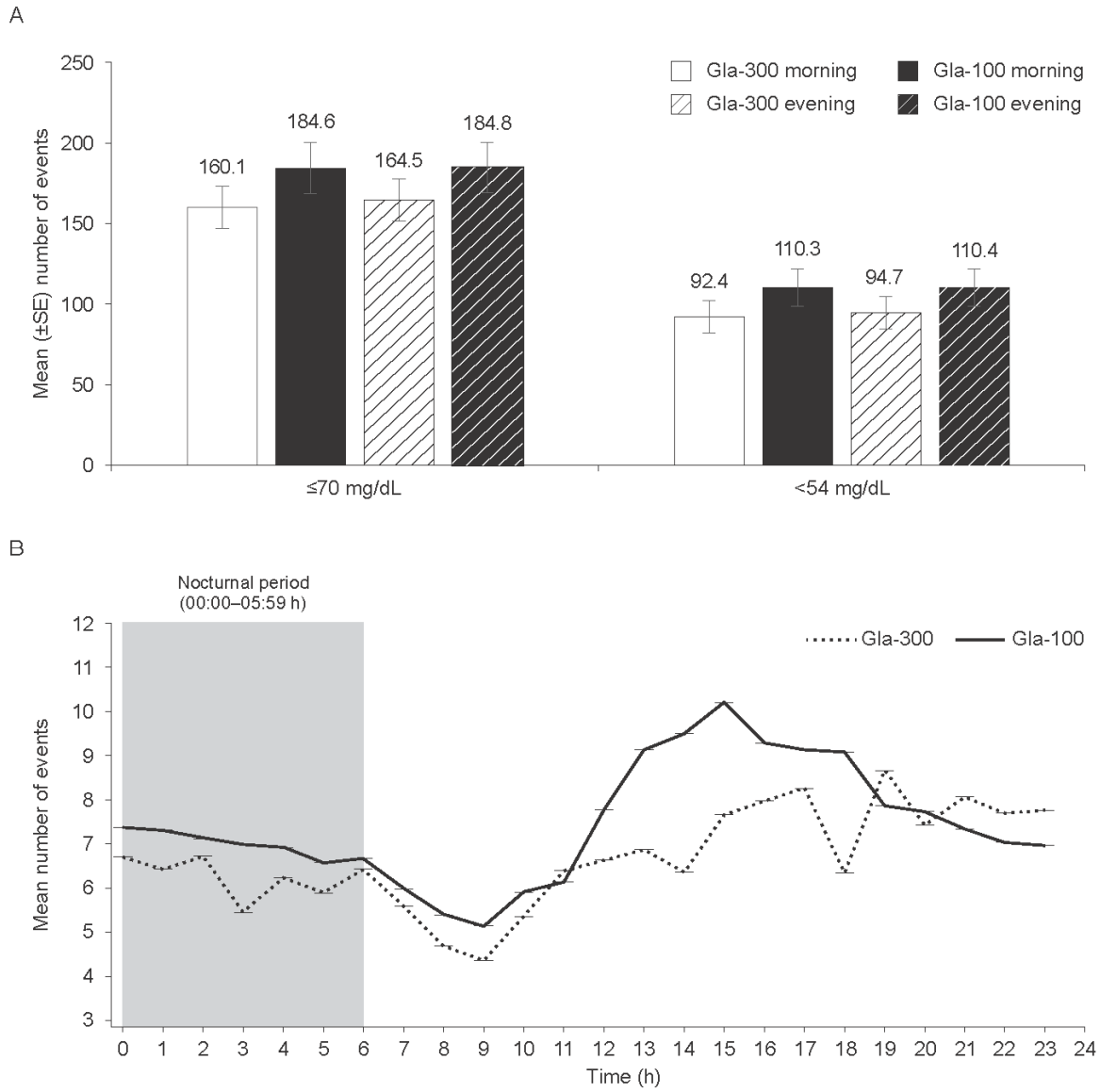
SUPPLEMENTARY DATA

Supplementary Figure SF3. CGM-detected low interstitial glucose values during the entire on-treatment period: (A) Mean number per participant of continuously measured values either ≤70 mg/dL or <54 mg/dL; (B) Mean number ofmeasurements of values ≤70 mg/dL by time of day



Safety population. CGM-detected low values defined as a set of any number of continuously measured interstitial glucose values either ≤70 mg/dL (panels A and B) or <54 mg/dL (panel A). CGM, continuous glucose monitoring.

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SUPPLEMENTARY DATA

Supplementary Table ST1. Baseline characteristics

Baseline characteristics	**Gla-300 (n=30)**	**Gla-100 (n=29)**	**All (N=59)**
Age, years	44.9 (15.1)	43.5 (13.7)	44.2 (14.3)
Male gender, %	56.7	51.7	54.2
Caucasian, %	100	100	100
Duration of diabetes, years	24.1 (14.9)	20.1 (12.4)	22.1 (13.8)
HbA_{1c}			
%	7.51 (0.69)	7.41 (0.62)	7.46 (0.65)
mmol/mol	58.6 (7.5)	57.5 (6.8)	58.0 (7.1)
FPG			
mmol/L	9.60 (3.98)	8.63 (4.18)	9.10 (4.07)
mg/dL	172.9 (71.7)	155.6 (75.2)	163.8 (73.3)
Body mass index, kg/m^2	27.4 (4.9)	27.2 (5.7)	27.3 (5.3)
eGFR, $mL/min/1.73m^2$	80.3 (21.3)	84.6 (15.4)	82.4 (18.6)
Prior basal insulin, %*			
Insulin glargine	96.6	82.1	89.5
NPH insulin	0	3.6	1.8
Insulin detemir	3.4	14.3	8.8

Randomized population. All data are mean (SD) unless specified otherwise. *Taken within the 3 months prior to randomization. eGFR, estimated glomerular filtration rate; FPG, fasting plasma glucose (central laboratory); NPH, neutral protamine Hagedorn.

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SUPPLEMENTARY DATA

Supplementary Table ST2. Daily basal, mealtime and total insulin dose

	Basal insulin (U/kg)	Mealtime insulin (U/kg)	Total insulin (U/kg)
Gla-300			
Prior to study*	0.30 (0.09)	0.32 (0.18)	0.61 (0.21)
Baseline	0.30 (0.09)	0.38 (0.19)	0.68 (0.23)
Week 16	0.35 (0.12)	0.32 (0.14)	0.67 (0.23)
Gla-100			
Prior to study*	0.31 (0.09)	0.30 (0.16)	0.60 (0.18)
Baseline	0.30 (0.10)	0.28 (0.13)	0.59 (0.17)
Week 16	0.33 (0.11)	0.30 (0.10)	0.63 (0.18)

mITT (modified intention-to-treat) population. All data are mean (SD) and based on observed cases.

*Mean of the previous daily doses for each participant during the last 14 days prior to randomization (randomized population).

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SUPPLEMENTARY DATA

Supplementary Table ST3.Summary of treatment-emergent adverse events reported by ≥2 participants in any treatment group

	Gla-300 (n=30)	Gla-100 (n=29)
Participants with any adverse event, n (%)	24 (80.0)	19 (65.5)
Nasopharyngitis	9 (30.0)	6 (20.7)
Pyrexia	3 (10.0)	2 (6.9)
Diarrhea	3 (10.0)	1 (3.4)
Implant site bruising	3 (10.0)	0
Headache	2 (6.7)	4 (13.8)
Influenza	2 (6.7)	3 (10.3)
Fatigue	2 (6.7)	2 (6.9)
Nausea	2 (6.7)	1 (3.4)
Migraine	2 (6.7)	1 (3.4)
Sinus congestion	2 (6.7)	1 (3.4)
Weight increased	2 (6.7)	0
Cough	1 (3.3)	2 (6.9)
Oropharyngeal pain	1 (3.3)	2 (6.9)
Nasal congestion	1 (3.3)	2 (6.9)
Vomiting	0	3 (10.3)

Safety population.

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