### Supplementary Table 1. Studies of patients with type 2 diabetes used in pooled analysis to obtain a population with 7-point glucose profiles before and after introduction of treatment with basal insulin (insulin glargine or comparator)

| Study (No.)       | Pre-study treatment regimen                                                                                     | Treatment comparator                                           | n/N (%)* | Treatment duration |
|-------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------|-------------------|
| Gerstein et al    | 0-2 OADs (no TZD) with ≥1 taken at or below ½ maximal dose                                                     | Insulin glargine                                               | 133/273 (48.7) | 24 weeks          |
| 2006 (11) (3502)  |                                                                                                               | OAD intensification                                           | 140/273 (51.3) |                  |
| Riddle et al      | Stable doses of 1 or 2 OADs (SU, MET, rosiglitazone, pioglitazone)                                            | Insulin glargine                                               | 185/384 (48.2) | 24 weeks          |
| 2003 (12) (4002)  |                                                                                                               | NPH insulin                                                   | 199/384 (51.8) |                  |
| Standl et al      | Uncontrolled on ≥1 OAD. During screening, previous OAD regimens were replaced with glimepiride 2, 3, or 4 mg | Insulin glargine (morning)/insulin glargine (bedtime)         | 378/378 (100)  | 24 weeks          |
| 2006 (13) (4009)  |                                                                                                               |                                                               |           |                  |
| Janka et al       | Stable doses of MET and SU. During screening, the SU was changed to glimepiride 3 or 4 mg                     | Insulin glargine                                               | 136/275 (49.5) | 24 weeks          |
| 2005 (14) (4027)  |                                                                                                               | NPH 70/30 insulin                                             | 139/275 (50.5) |                  |
| Bretzel et al     | Stable doses of ≥1 OAD (no alpha-glucosidase inhibitor) for ≥3 months                                         | Insulin glargine                                               | 155/314 (49.4) | 44 weeks          |
| 2008 (15) (4040)  |                                                                                                               | Insulin lispro                                                | 159/314 (50.6) |                  |
| Yki-Järvinen et   | Stable doses of MET and SU or MET alone for ≥3 months. SU was discontinued at randomization                      | Insulin glargine                                               | 39/75 (52)    | 36 weeks          |
| al 2006 (16)      |                                                                                                               | NPH insulin                                                  | 36/75 (48)   |                  |
| (6001)            |                                                                                                               |                                                               |           |                  |
| Overall           |                                                                                                               | Insulin glargine                                               | 1026/1699 (60.4) | ≥24 weeks        |
|                   |                                                                                                               | Comparator                                                    | 673/1699 (39.6) |                  |

*Number of patients out of the subset of patients with complete 7-point glucose profile data at baseline and week 24. MET, metformin; OAD, oral antidiabetic drug; SU, sulfonylurea; TZD, thiazolidinedione.
**Supplementary Table 2.** Incidence of hypoglycemia

|                     | Symptomatic hypoglycemia | Glucose-confirmed symptomatic hypoglycemia* | Severe symptomatic hypoglycemia* |
|---------------------|--------------------------|---------------------------------------------|---------------------------------|
| Basal insulin       | 750/1261 (59.5%)         | 374/1186 (31.5%)                            | 14/1186 (1.2%)                 |
| Others              | 285/438 (65.1%)          | 185/438 (42.2%)                             | 11/438 (2.5%)                  |
| Odds ratio (95% CI) | 0.788 (0.628, 0.988)     | 0.630 (0.503, 0.789)                        | 0.464 (0.209, 1.029)           |
| \( P \)             | 0.0390                   | <0.0001                                     | 0.0589                         |

*One of the studies (16) did not collect severity of glucose level for hypoglycemia events and thus were not included in the glucose-confirmed or severe hypoglycemia assessments.

**Supplementary Figure 1.** Depiction of the normal glycemic exposure (\( \text{AUC}_N \)), basal hyperglycemia (\( \text{AUC}_B \)), and postprandial hyperglycemia (\( \text{AUC}_P \)). The total area under the glucose curve is the sum of the above 3 measures [\( \text{AUC}_N + \text{AUC}_B + \text{AUC}_P \)].