

## SUPPLEMENTARY MATERIAL

### **Inclusion and exclusion criteria**

#### ***Inclusion criteria***

- Adults 19 years of age or older
- Diagnosed with type 1 diabetes mellitus at least 6 months prior and used multiple daily injection or insulin pump for more than 3 months.
- Type 1 diabetes mellitus with recent glycosylated hemoglobin less than 7.5%.
- Patients judged to be able to manage their diabetes through insulin administration and glucose monitoring based on assessment at the screening visit.
- Patients who voluntarily signed the informed consent form.

#### ***Exclusion criteria***

- Likely to change dosage of oral diabetes drugs or take new ones after participating in clinical trials.
- Hospitalized for severe hypoglycemia and acute ketoacidosis within the last 3 months.
- Renal impairment measured as estimated glomerular filtration rate value  $<30$  mL/min/1.73 m<sup>2</sup> or dialysis.
- Acute cardiovascular disease diagnosed within the last 3 months.
- Patients with malignant tumor.
- Patients with aspartate transaminase and alanine transaminase three times greater than the upper limit of the normal range.
- Gastrointestinal disorders such as repeated diarrhea, vomiting, and severe gastrointestinal hypertrophy.
- Pregnant and breast feeding or expecting to be pregnant.
- Variable insulin requirements (pre-operative, severe trauma, infections, etc.).
- Allergies to acrylic adhesive tape.
- Skin rashes or conditions that affect adhesion of investigational devices (EOPatch, Dexcom G5).
- Excessive alcohol intake ( $\geq 420$  g/week, approximately 7 bottles/week, 1 bottle/day of soju) or alcoholic.
- Patients engaged in dangerous work, such as working at heights.
- Patients with anaphylaxis to insulin.
- Patients who are unaware of hypoglycemia.
- Anyone unfit to participate in clinical trials.

### **Training programs**

- Training 1: Three hours of training on investigational device use and simple insulin control, providing advanced diabetes manager and practice patches, and using patching tape to assess truffles.
- Training 2: Check for difficulties or mastery over concepts from week one and provide supplementary training.
- Training 3: Provide supplementary training if necessary.