## **Description of Additional Supplementary Files**

File name: Supplementary Data 1

**Description:** Values of PAUC&PR for all methods in Table 1 in each dataset

File name: Supplementary Data 2

**Description:** Rank values relative to Figure 2c

**File name:** Supplementary Data 3

**Description:** Time-consumption based on cell gradient

**File name:** Supplementary Data 4 **Description:** Metadata of Figure 4