**Figure and Text**

**Panel a:**
- WT and 5xFAD neuron images with a 50 µm scale bar.

**Panel b:**
- Graph showing the number of intersections with respect to radius [µm].
- Legend: □ WT, □ 5xFAD.

**Panel c:**
- Bar graph comparing total dendritic length [µm].
- WT: 0, 50, 100 spines/µm.
- 5xFAD: 1000, 2000, 3000, 4000 total dend. length [µm].

**Panel d:**
- Bar graph showing spine morphology [%] between 0 and 100%.
- Categories: Mushroom, Thin, Stubby.

**Panel e:**
- Stacked bar graph comparing spine morphology between WT and 5xFAD.

**Panel f:**
- Graph showing cumulative probability with respect to 5pA and 200ms.

**Panel g:**
- Graph showing cumulative probability with respect to IEI [s].
- Frequency [Hz]: 0, 1, 2, 3, 4, 5, 6.

**Panel h:**
- Graph showing cumulative probability with respect to peak ampl. [pA].
- Amplitude [pA]: 0, 5, 10, 15, 20, 25, 30.