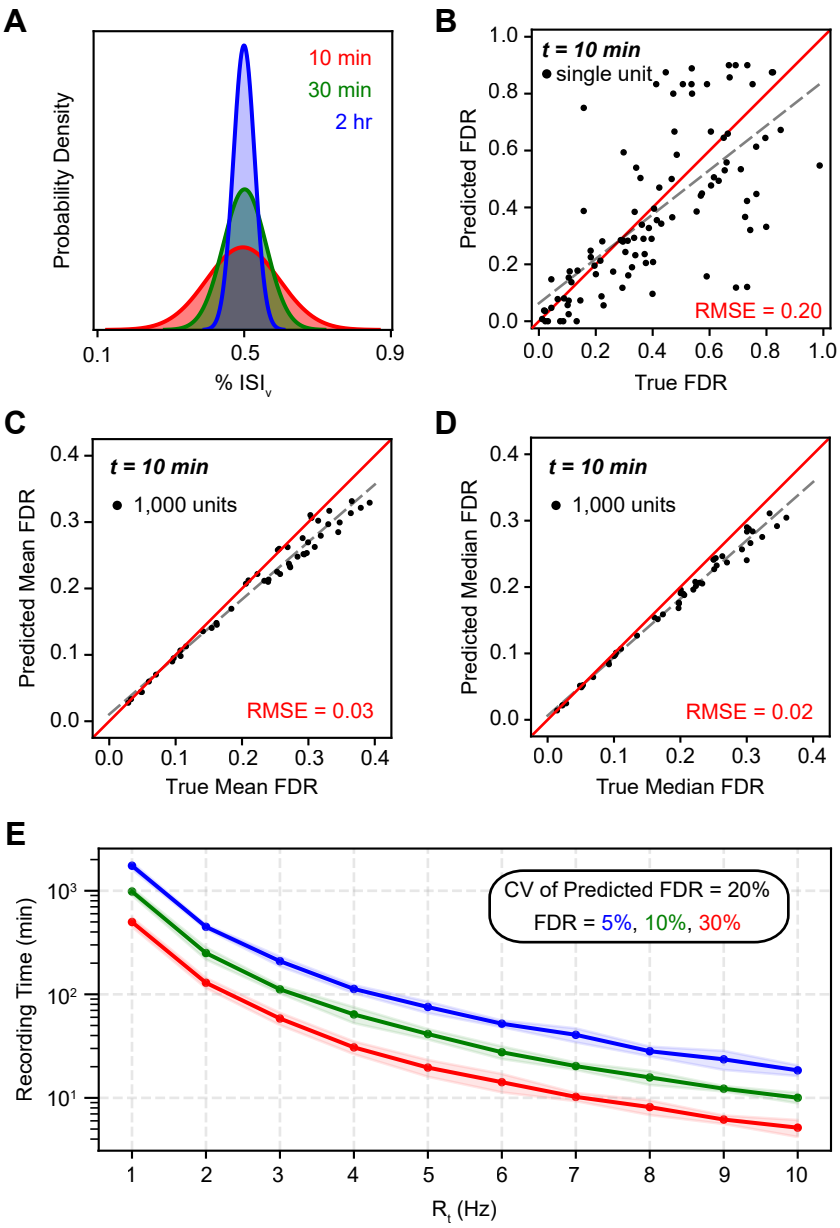

Figure 4. Prediction of FDR for single units and unit populations under realistic conditions. ***(A)*** Probability density functions of observed % ISI_v for an example 8 Hz, 15% FDR neuron recorded for varying time lengths. ***(B)*** Prediction of FDR in single units recorded for 10 minutes. Unit firing rates range randomly from 1 to 10 Hz, in-out covariance from -5.4 to 6.9 Hz^2, and confounding neuron counts from 1 to infinity. ***(C)*** Prediction of mean FDR in 1,000 unit populations. Unit FDRs are Cauchy-distributed around the population mean. Unit firing rates range randomly from 4 to 16 Hz, in-out covariance from -49.2 to 113.7 Hz^2, and confounding neuron counts from 1 to infinity. ***(D)*** Prediction of median FDR in 1,000 unit populations. Parameters as in ***(C)***. ***(E)*** Minimum recording time required for predictions of FDR in a single unit to have a CV of 20%.