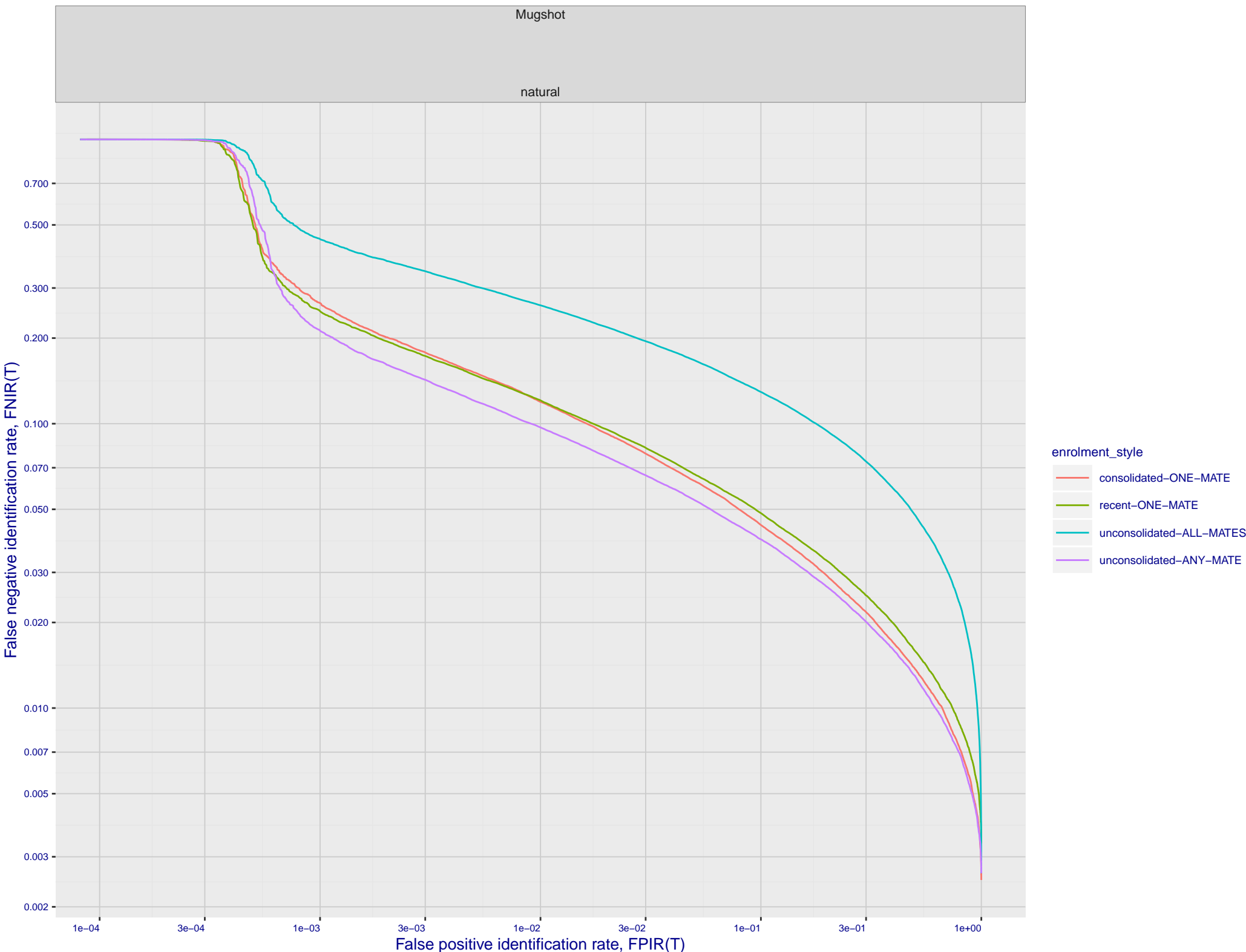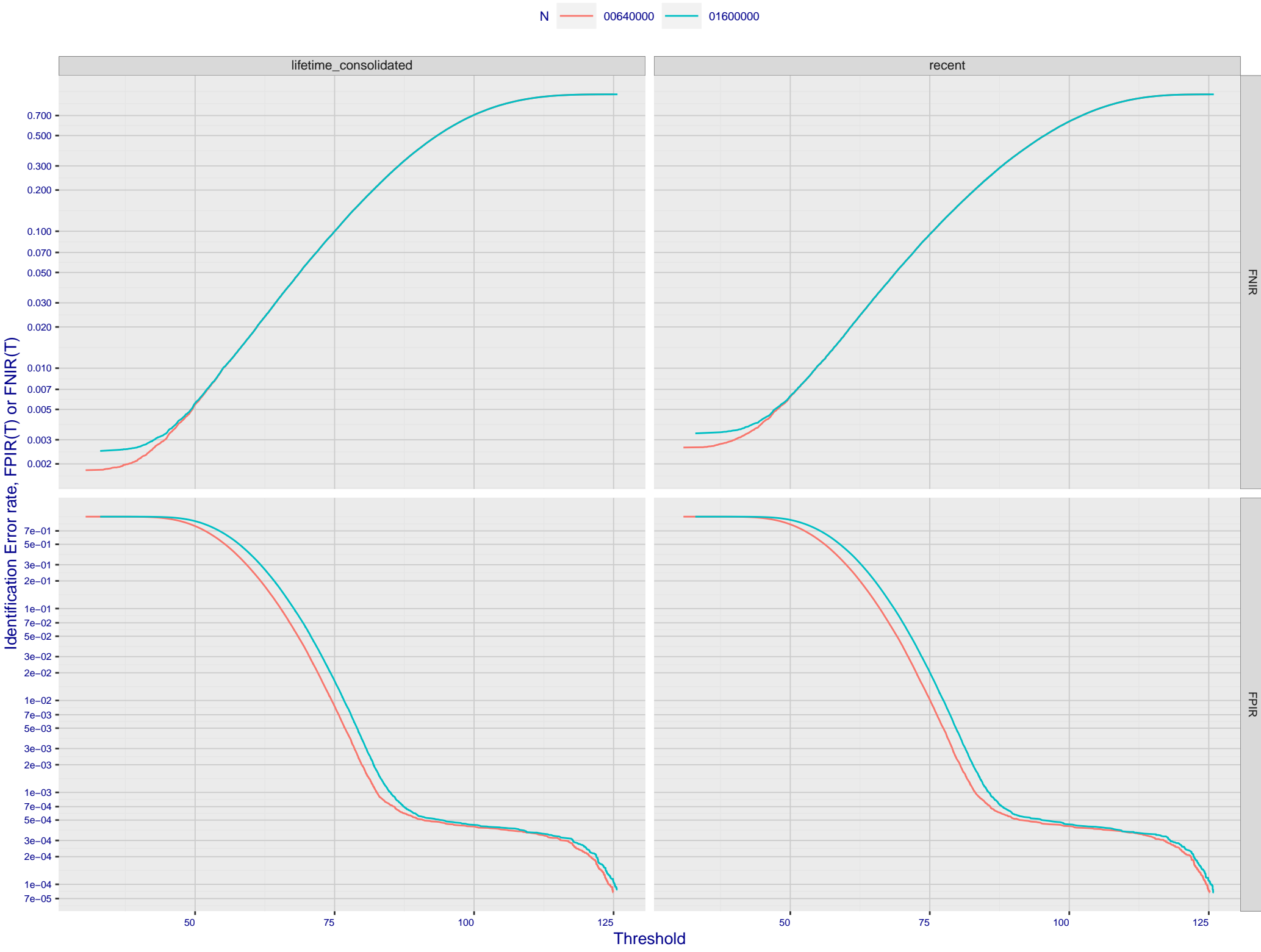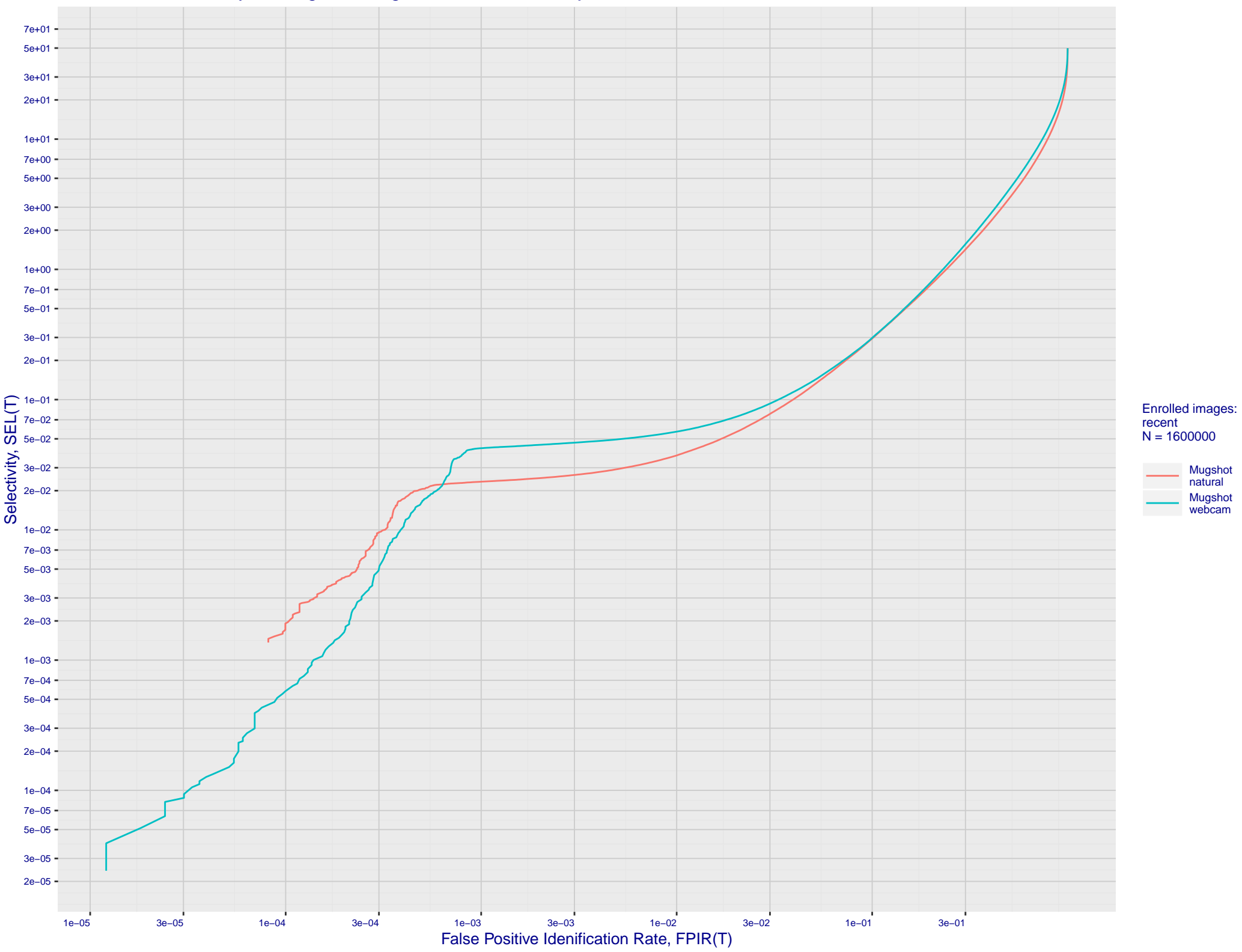A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals
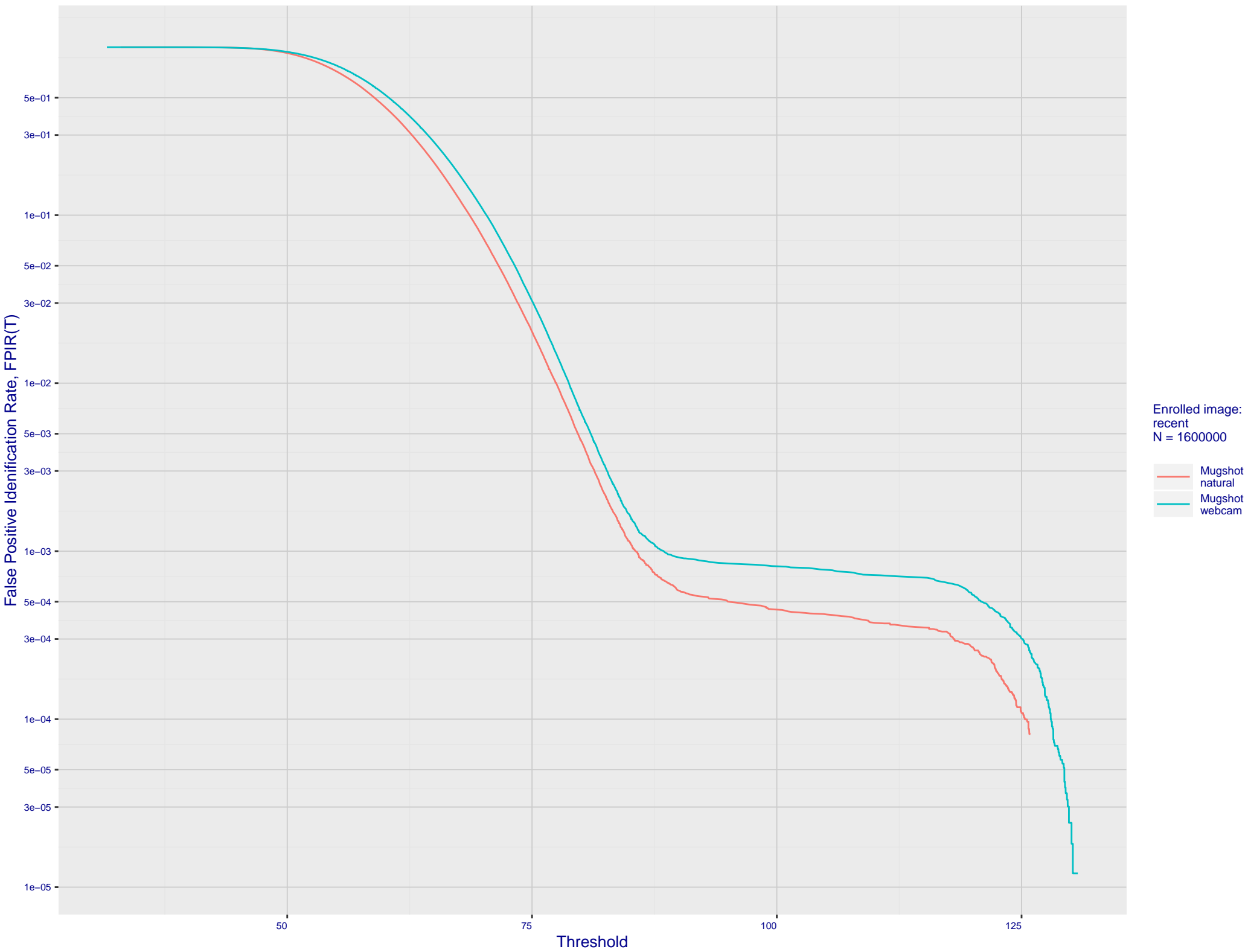
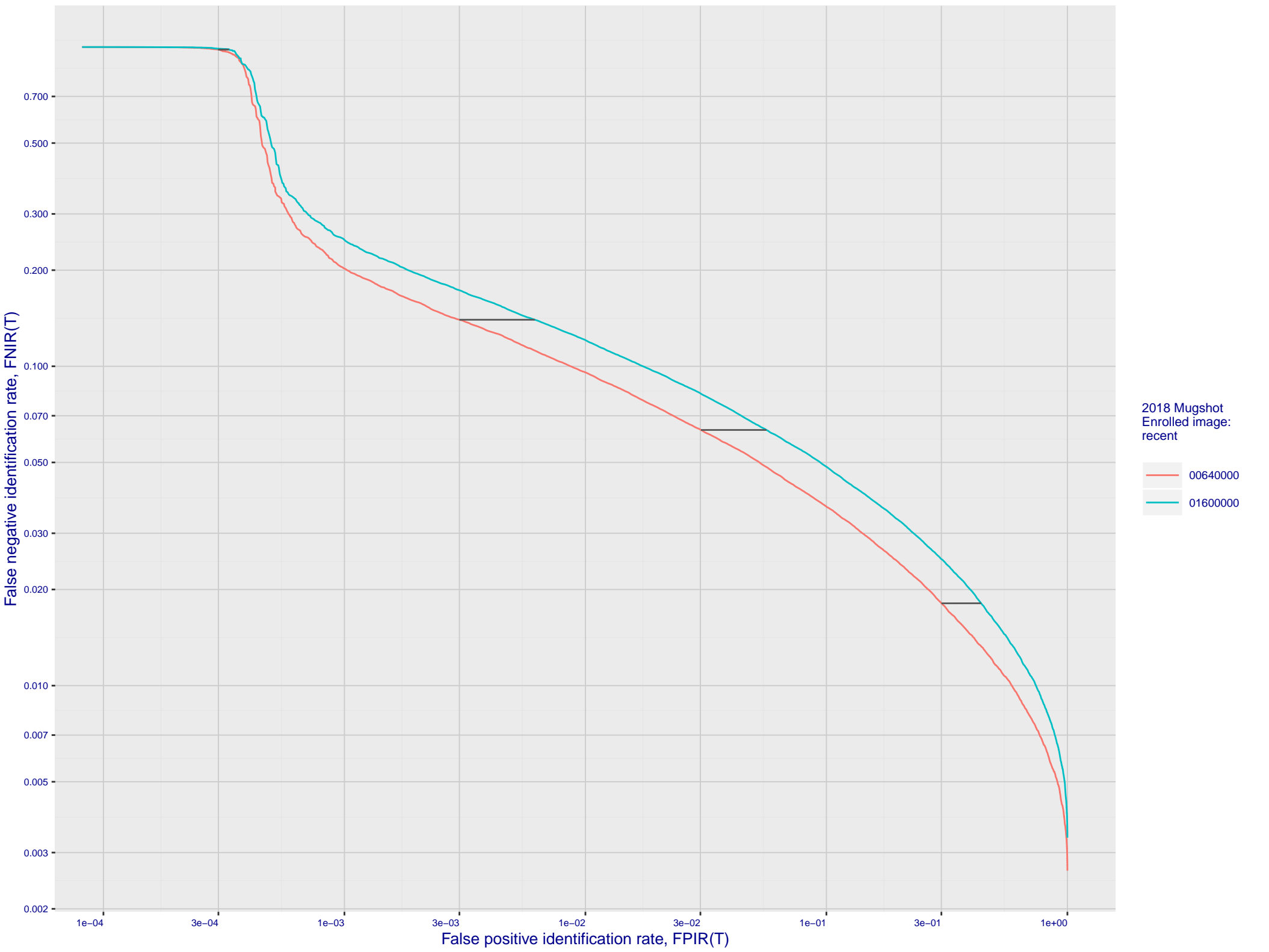B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images

C: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate
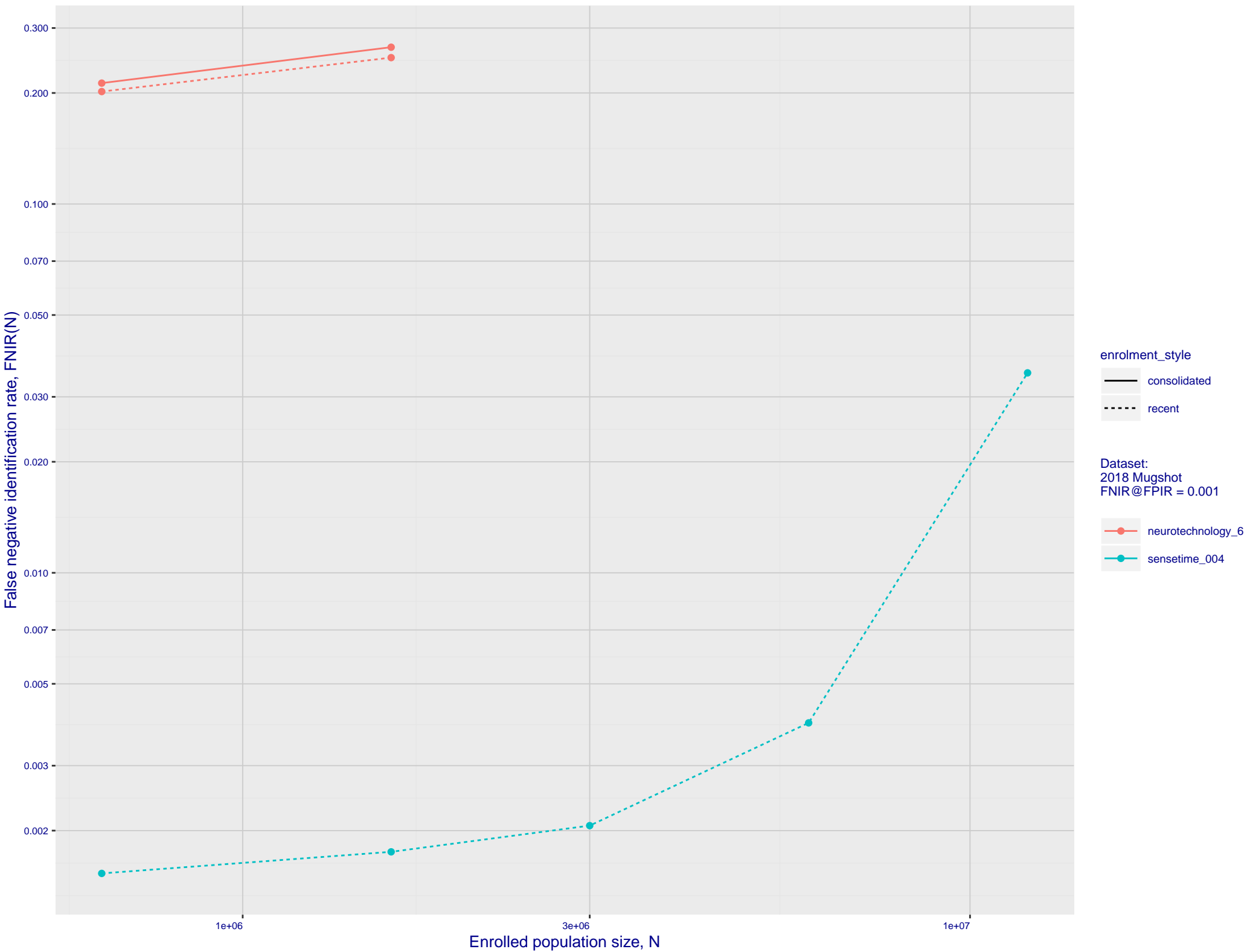
D: FPIR dependence on T by probe type for N = 1600000 subjects

E: DET for Mugshot natural images and various N. Links connect points of equal threshold.

False negative identification rate, FNIR(T) (y-axis): 0.700, 0.500, 0.300, 0.200, 0.100, 0.070, 0.050, 0.030, 0.020, 0.010, 0.007, 0.005, 0.003, 0.002

False positive identification rate, FPIR(T) (x-axis): 1e-04, 3e-04, 1e-03, 3e-03, 1e-02, 3e-02, 1e-01, 3e-01, 1e+00

2018 Mugshot
Enrolled image:
recent

00640000
01600000

F: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (sensetime_004)

G: Datasheet

Algorithm: neurotechnology_6

Developer: Neurotechnology

Submission Date: 2018_10_30

Template size: 256 bytes

Template time (2.5 percentile): 726 msec

Template time (median): 727 msec

Template time (97.5 percentile): 812 msec

Frontal mugshot investigation rank 147 –– FNIR(1600000, 0, 1) = 0.0180 vs. lowest 0.0010 from sensetime_004

natural investigation rank 127 –– FNIR(1600000, 0, 1) = 0.0448 vs. lowest 0.0067 from sensetime_003

natural investigation rank 85 –– FNIR(1600000, 0, 1) = 0.4195 vs. lowest 0.0492 from paravision_005

natural investigation rank 85 –– FNIR(1600000, 0, 1) = 0.4195 vs. lowest 0.0492 from paravision_005

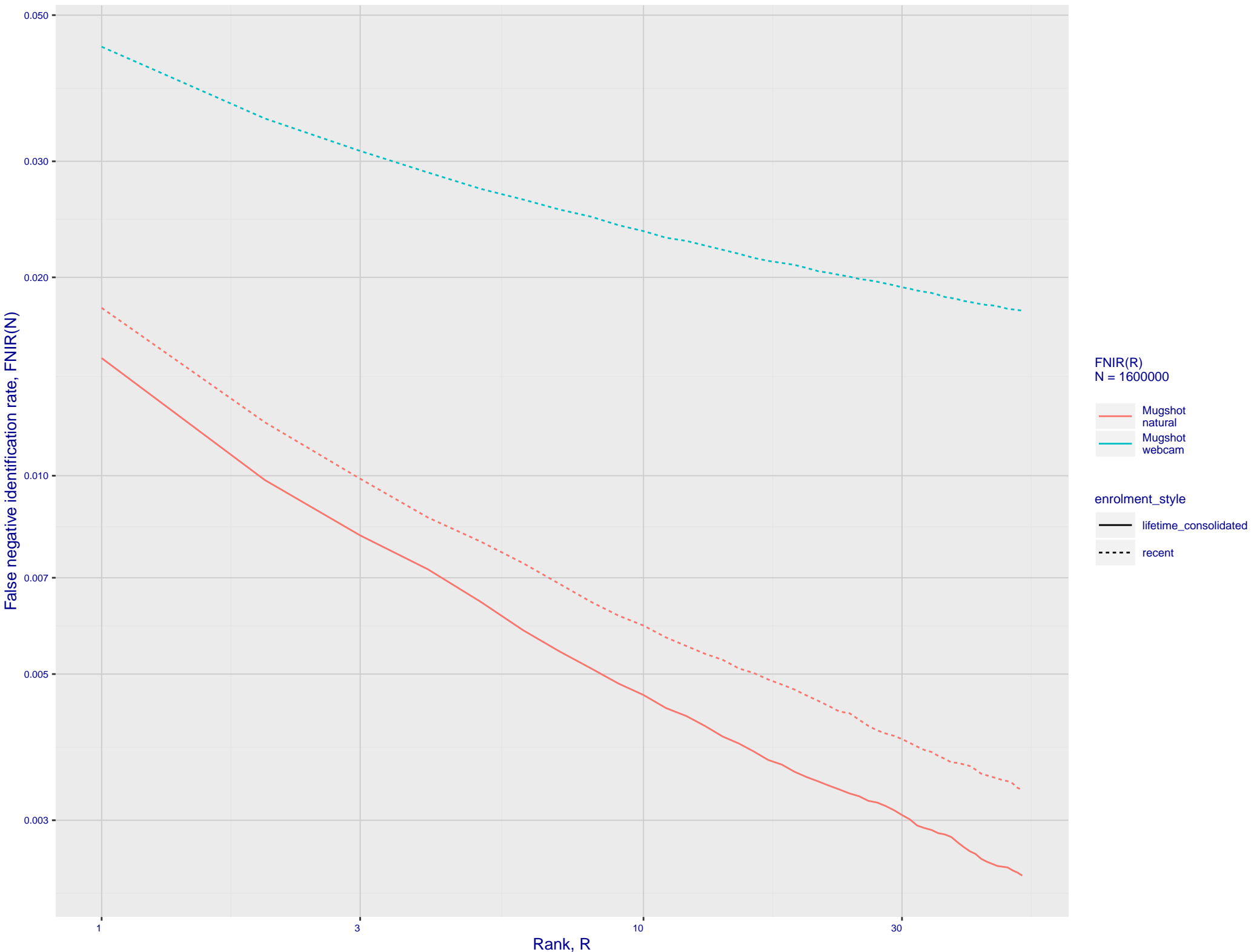Frontal mugshot identification rank 171 –– FNIR(1600000, T, L+1) = 0.2494 vs. lowest 0.0018 from sensetime_004

natural identification rank 160 –– FNIR(1600000, T, L+1) = 0.4176 vs. lowest 0.0122 from sensetime_003

H: Investigational mode: FNIR(N, 1, 0) vs. most accurate (yitu_4)
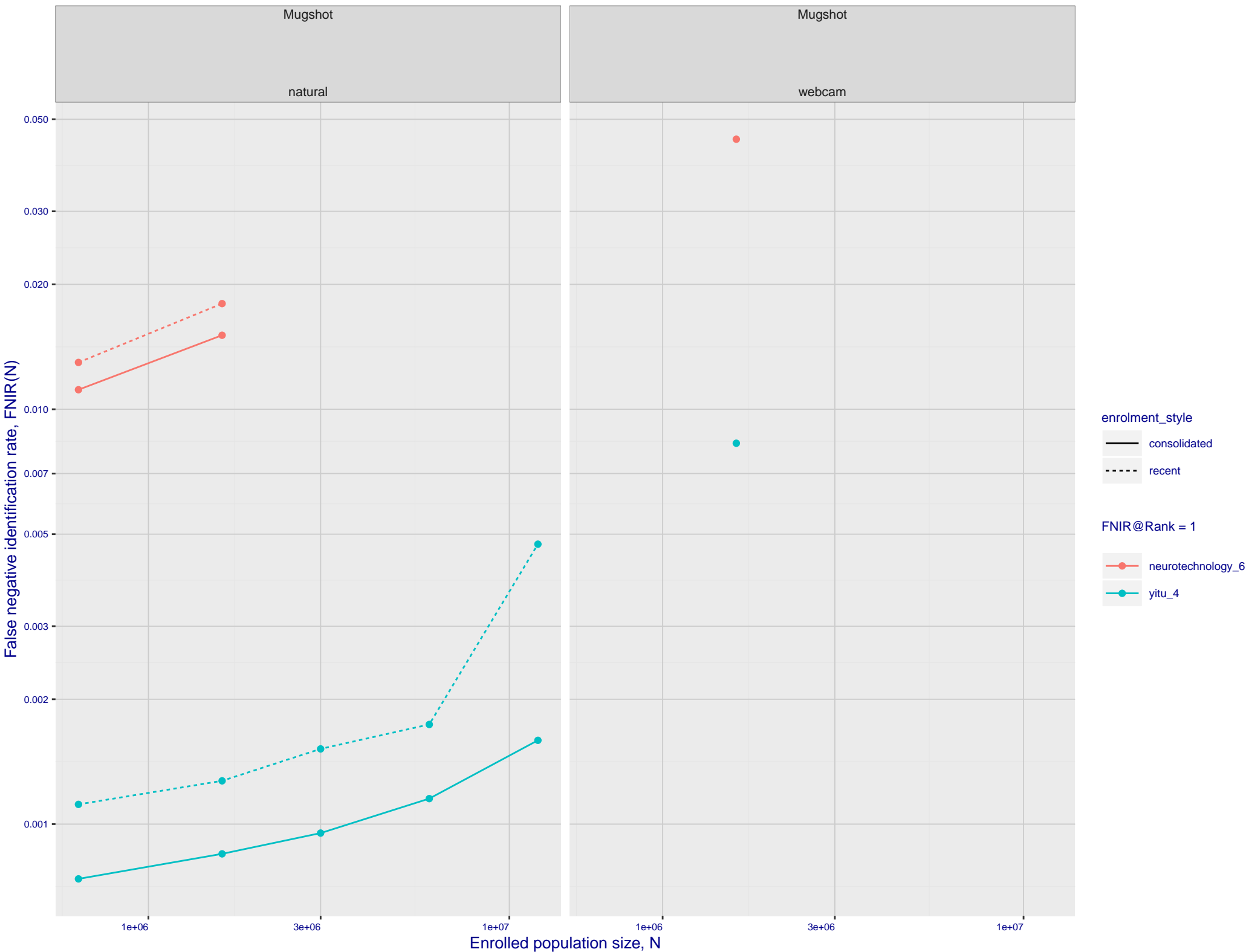
I: Investigational mode: FNIR(1600000, R, 0) by probe type

Template duration; search duration vs. N. The blue and pink ribbon covers 95 percent of observed measurements. The template generation time is independent of N. The log and power–law models are fit to the first two (N,T) observations