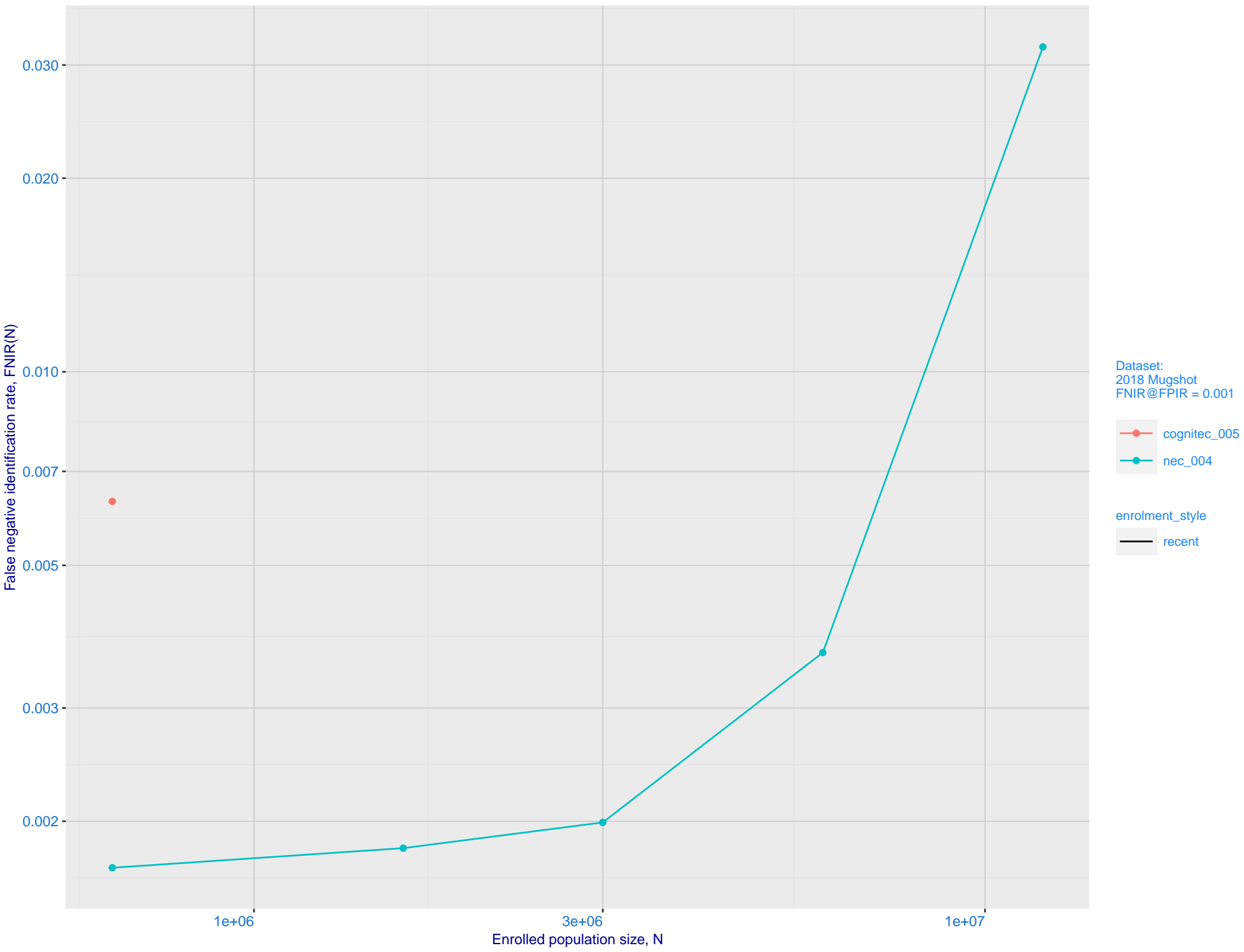# A: Datasheet

Algorithm: cognitec_005

Developer: Cognitec Systems GmbH

Submission Date: 2021_07_30
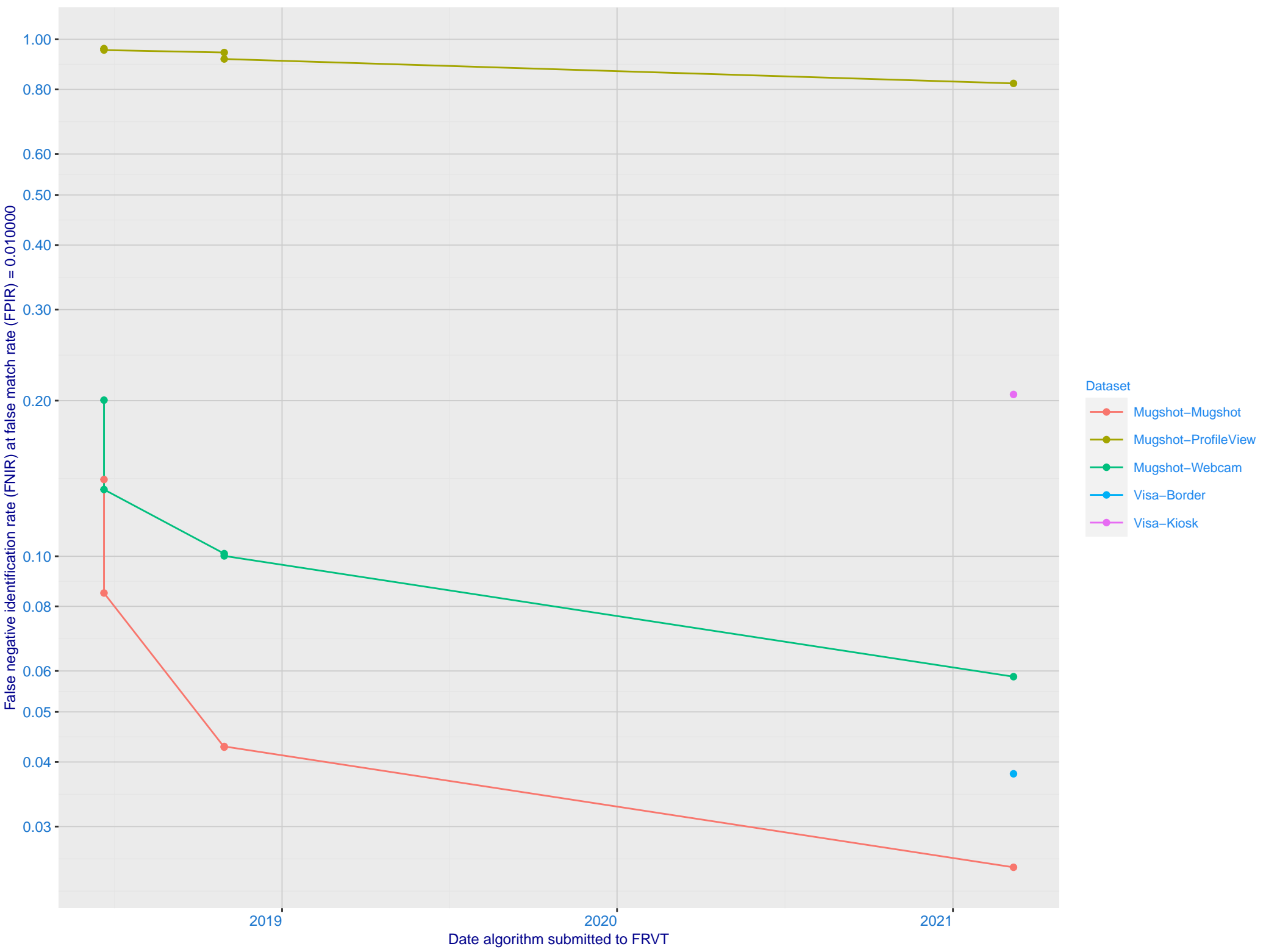
Investigation:

Identification:
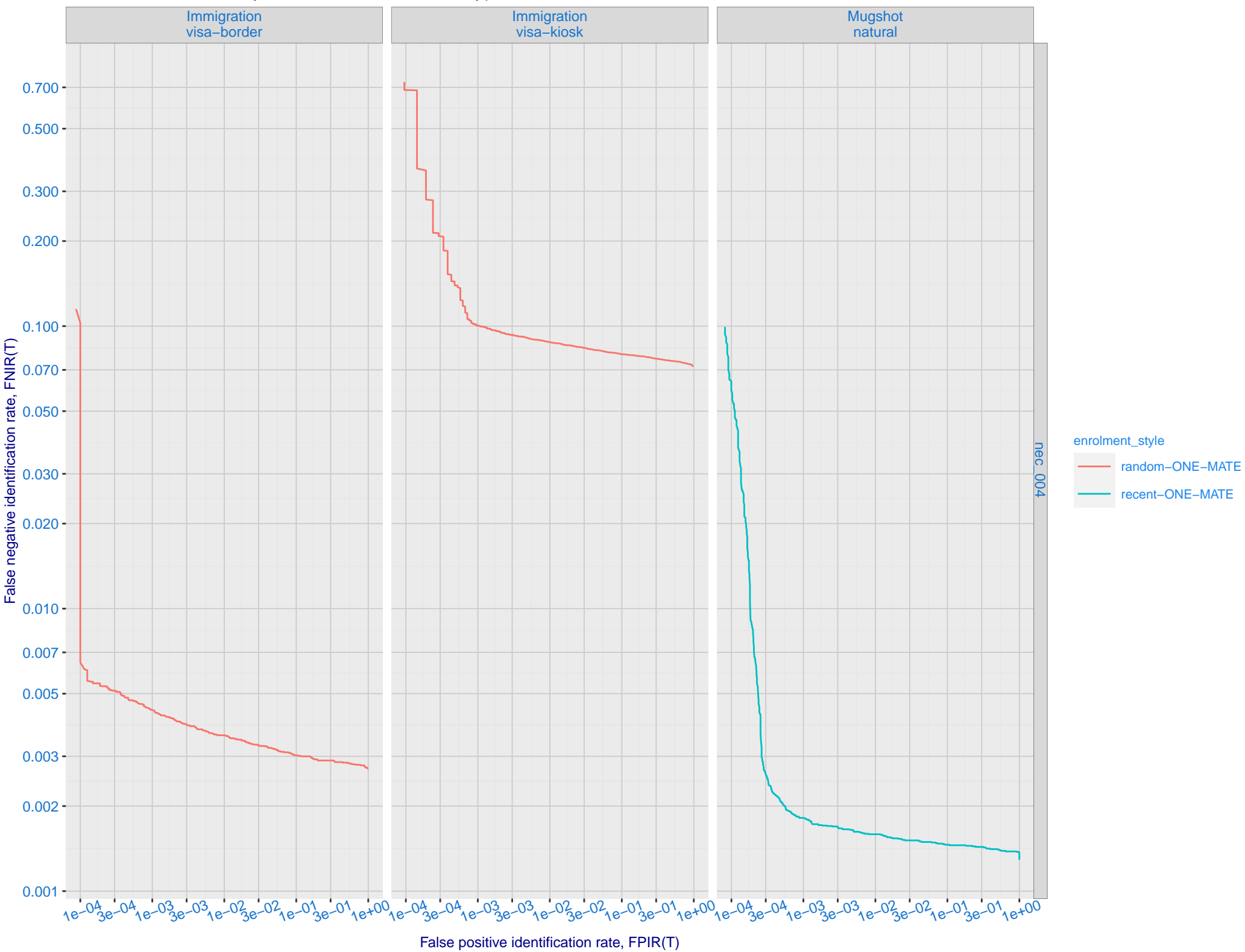
B: Mugshot natural images, identification mode: FNIR(N, L+1, T) vs. most accurate (nec_004)

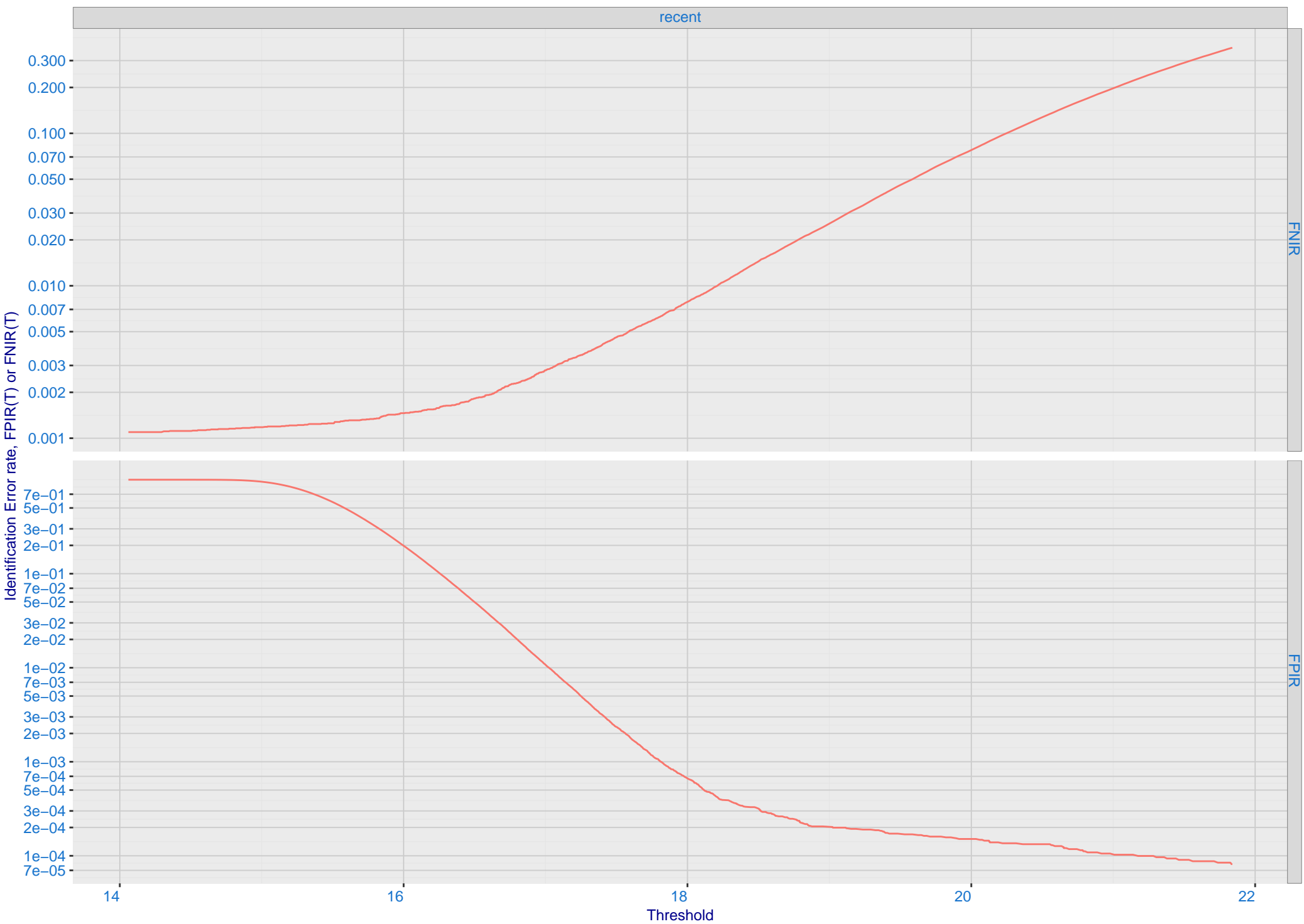**C: Evolution of accuracy for COGNITEC algorithms on three datasets 2018 – present**

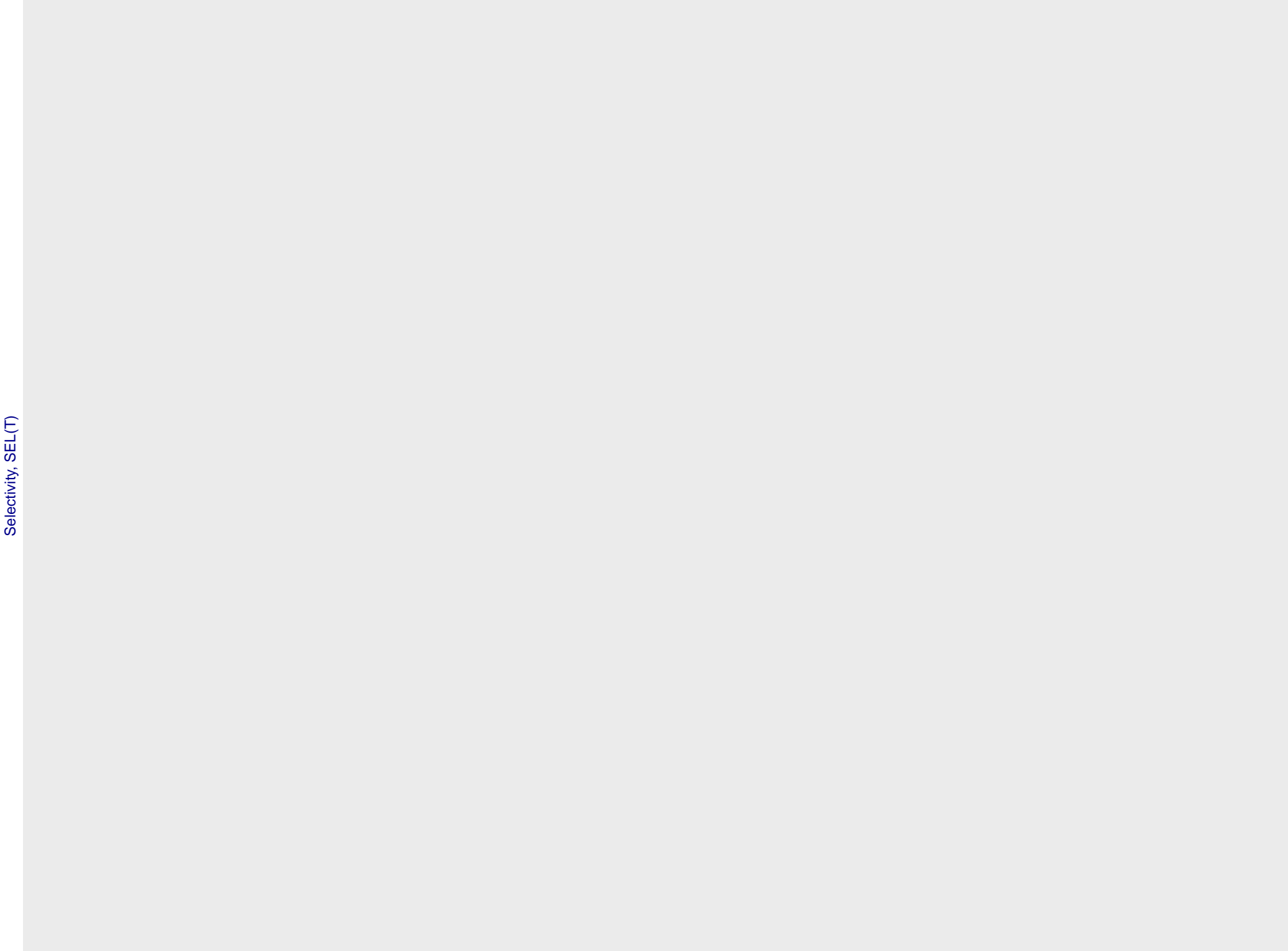D: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals

E: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images

F: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate

Selectivity, SEL(T)

False Positive Idenification Rate, FPIR(T)
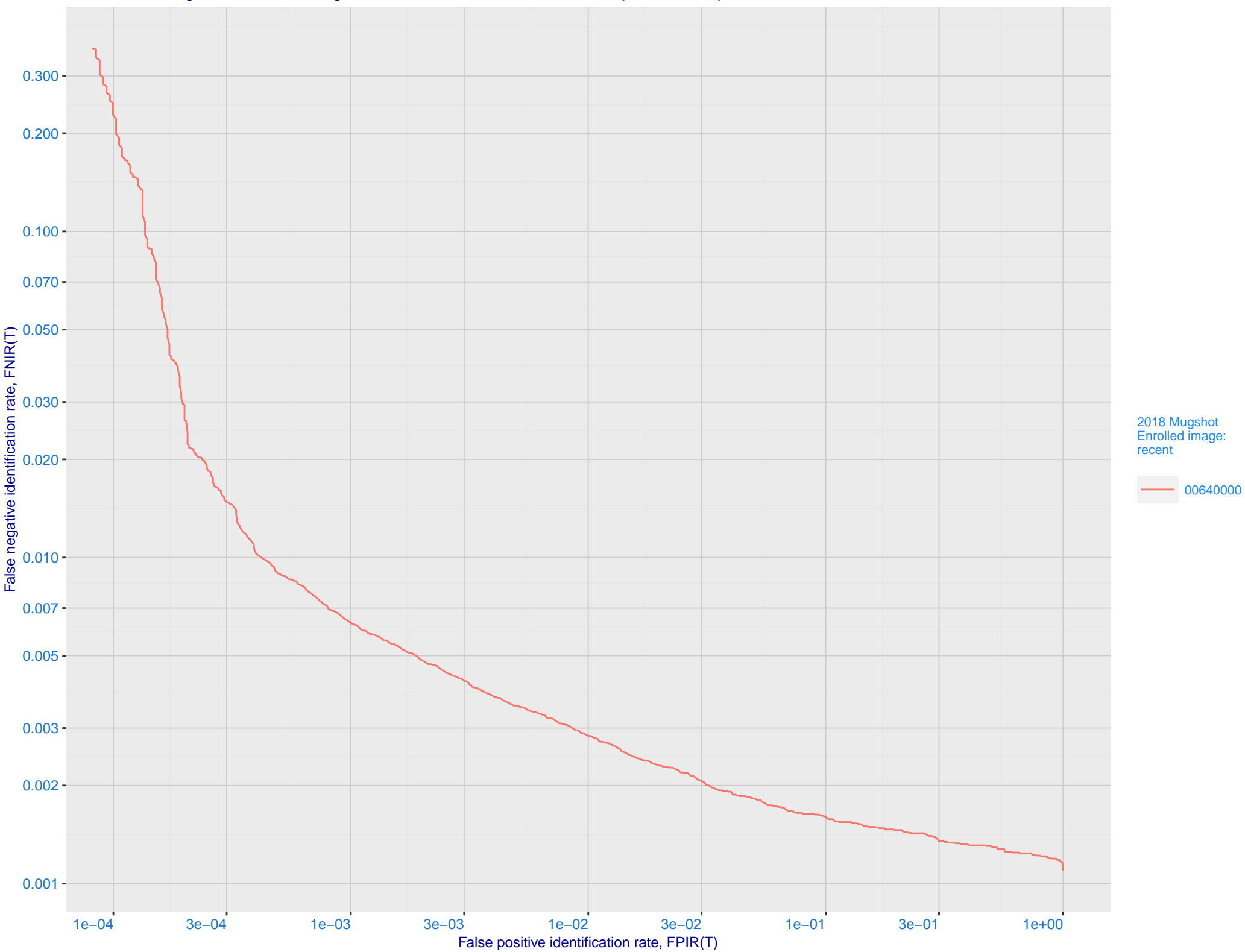
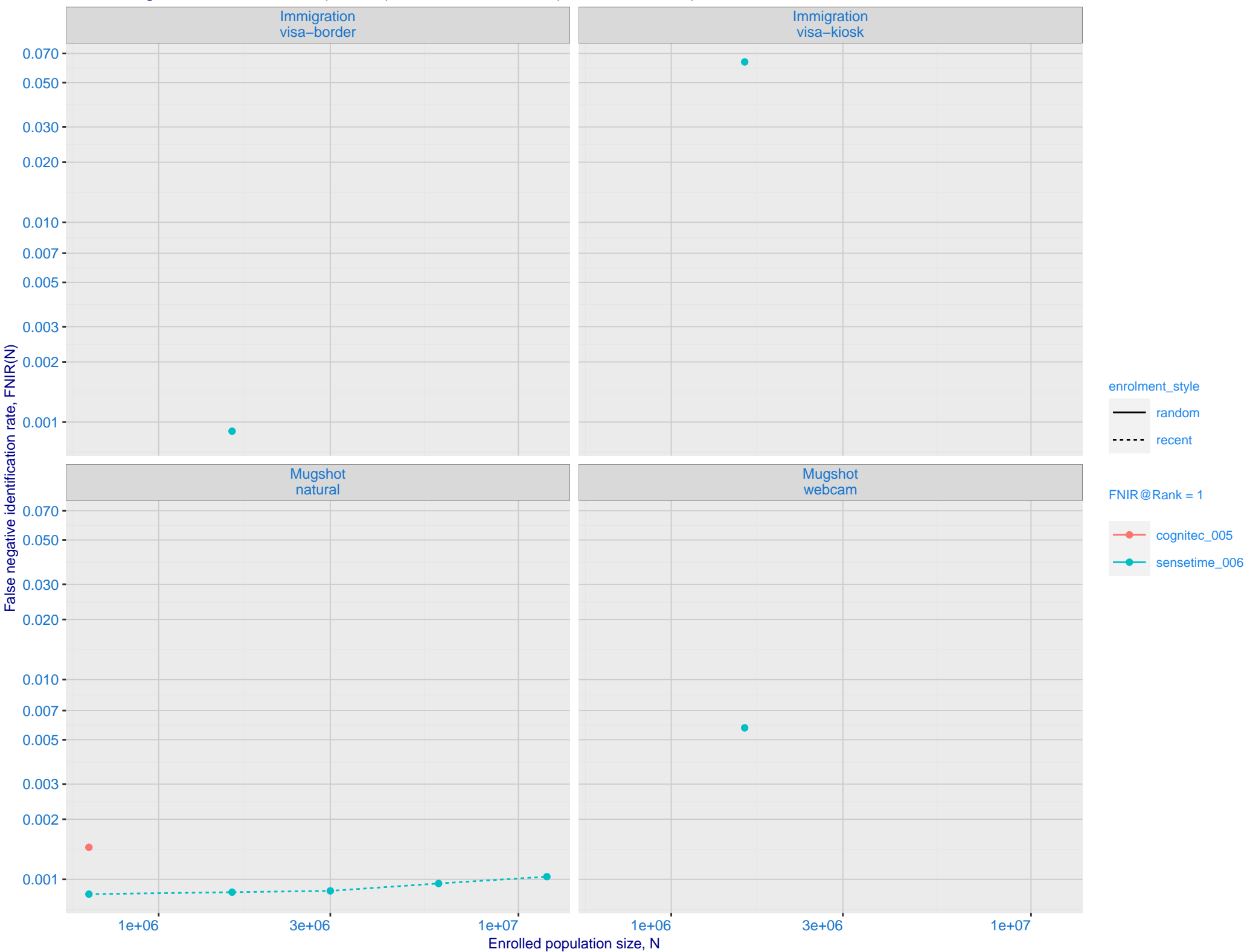G: FPIR dependence on T by probe type for N = 1600000 subjects

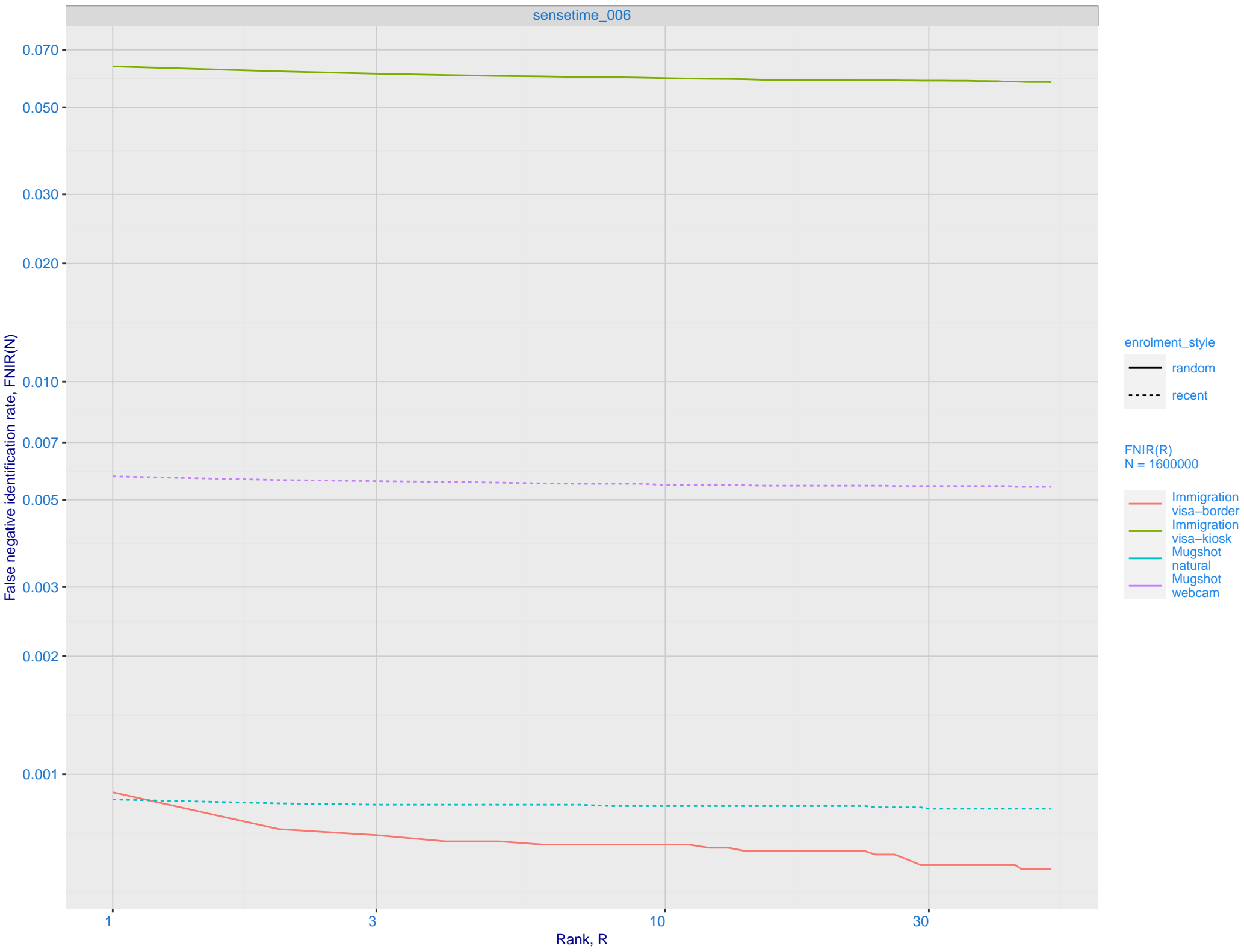False Positive Idenification Rate, FPIR(T)

Threshold

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

K: Investigational mode: FNIR(N, 1, 0) vs. most accurate (sensetime_006)

L: Investigational mode: FNIR(1600000, R, 0) by probe type

M: 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

Search Duration (milliseconds)

Enrolled population size, N, one image per person

Q: Identification FNIR(N, T, L+1) and Investigational FNIR(N, 0, R) under ageing

Dataset: 2018 Mugshot   N = 3068801

Legend:
- (00,02]
- (02,04]
- (04,06]
- (06,08]
- (08,10]
- (10,12]
- (12,14]
- (14,18]

FPIR | Rank

cloudwalk_hr_000

False negative identification rate (FNIR)

False positive identification rate, FPIR   or   Rank, R