
# *PRAX-944*
# *ESSENTIAL TREMOR*

## Phase 2a Part B Topline Results

May 9, 2022

# Forward-looking statements

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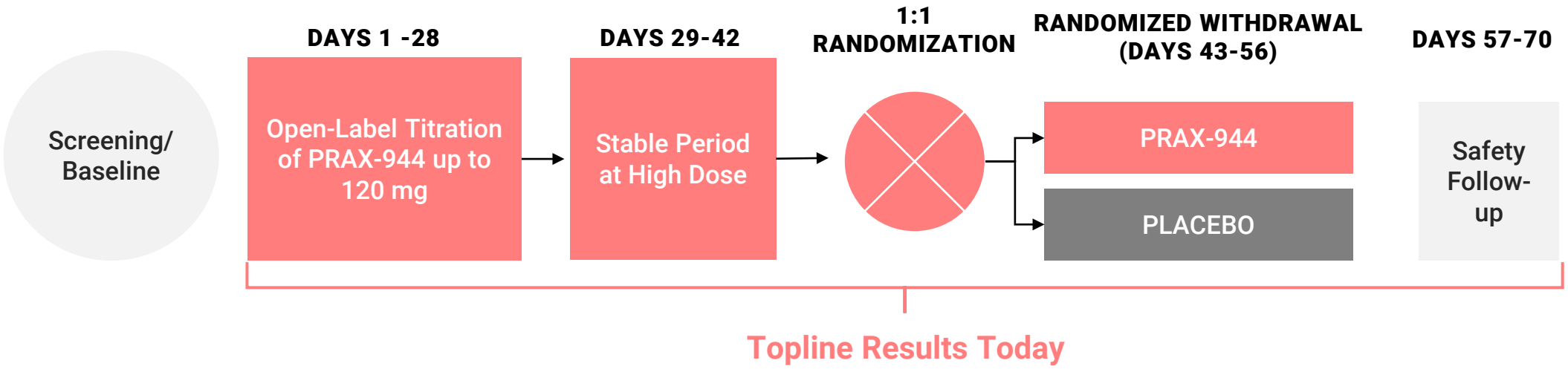
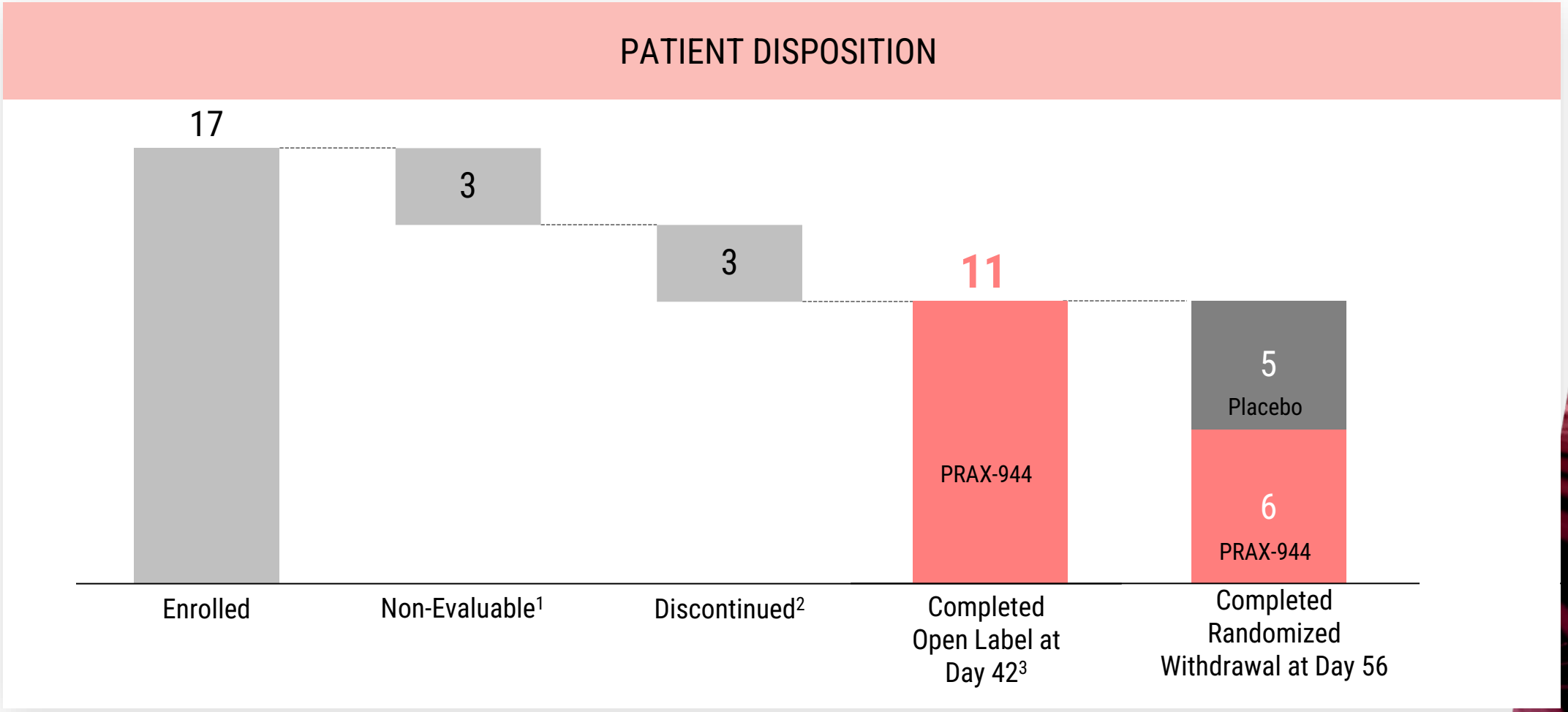
For further information regarding the risks, uncertainties and other factors that may cause differences between Praxis' expectations and actual results, you should review the "Risk Factors" section of our Annual Report on Form 10-K filed for the period ended December 31, 2021, our Quarterly Reports on Form 10-Q and other filings with the Securities and Exchange Commission.

Certain information contained in this presentation relates to or is based on studies, publications, surveys and other data obtained from third-party sources and our own internal estimates and research. While we believe these third-party sources to be reliable as of the date of this presentation, we have not independently verified, and make no representation as to the adequacy, fairness, accuracy or completeness of, any information obtained from third-party sources. In addition, all of the market data included in this presentation involves a number of assumptions and limitations, and there can be no guarantee as to the accuracy or reliability of such assumptions. Finally, while we believe our own internal research is reliable, such research has not been verified by any independent source.

# PRAX-944 Phase 2a Part B open-label and randomized withdrawal study design



# PRAX-944 Phase 2a Part B patient disposition




[1] Site suspended due to protocol violations, no evaluable data for three patients after Day 1; See Slide 10 for safety data
[2] Three patients discontinued at the 40mg (escalation), 60mg (escalation), and 40mg (down-titration) dose level
[3] Three patients down titrated to 20mg, 60mg, 100mg dose level

Source: Praxis Data on file

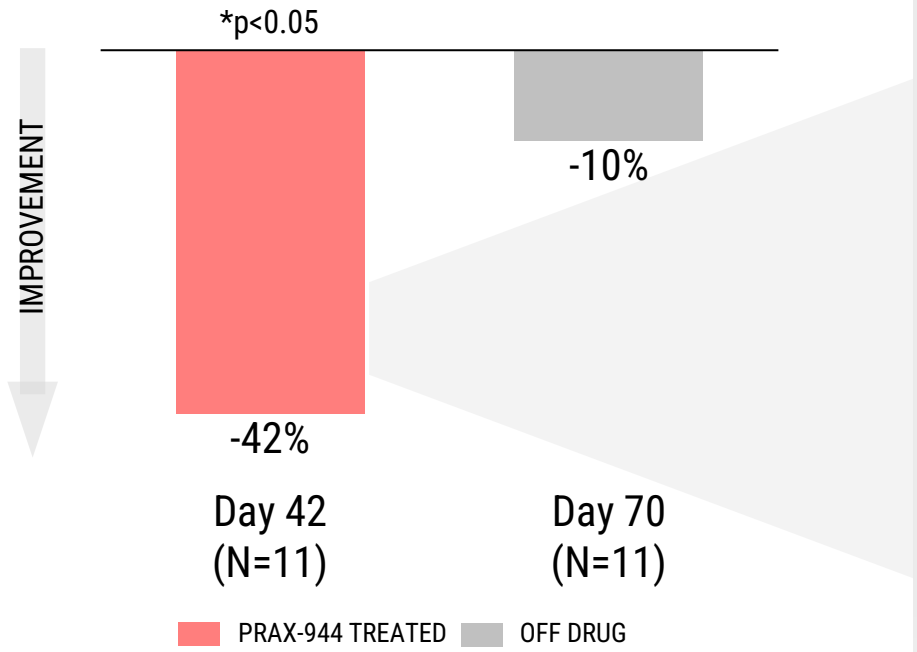
# PRAX-944 Phase 2a Part B participants representative of broad essential tremor population

| BASELINE DEMOGRAPHICS | EVALUABLE PARTICIPANTS[1] (N=14) | COMPLETED (N=11) |
|---|---|---|
| Age, mean (range) | 59 (26-76) | 62 (43-76) |
| Gender (Male/Female) (n, %) | 11/3 (79%/21%) | 8/3 (73%/27%) |
| # previously on ET medication (n, %) | 9 (64%) | 6 (55%) |
| # currently on ET medication (n, %) | 3 (21%) | 2 (18%) |
| Family History – First-degree relative with ET (n, %) | 8 (57%) | 5 (45%) |
| ET worsened over past 3 years (n, %) | 12 (86%) | 9 (82%) |
| TETRAS Modified ADL, mean (SD) | 16.6 (4.2) | 16.9 (4.3) |
| Kinesia ONE, mean (SD) | 9.9 (4.1) | 11.2 (3.6) |

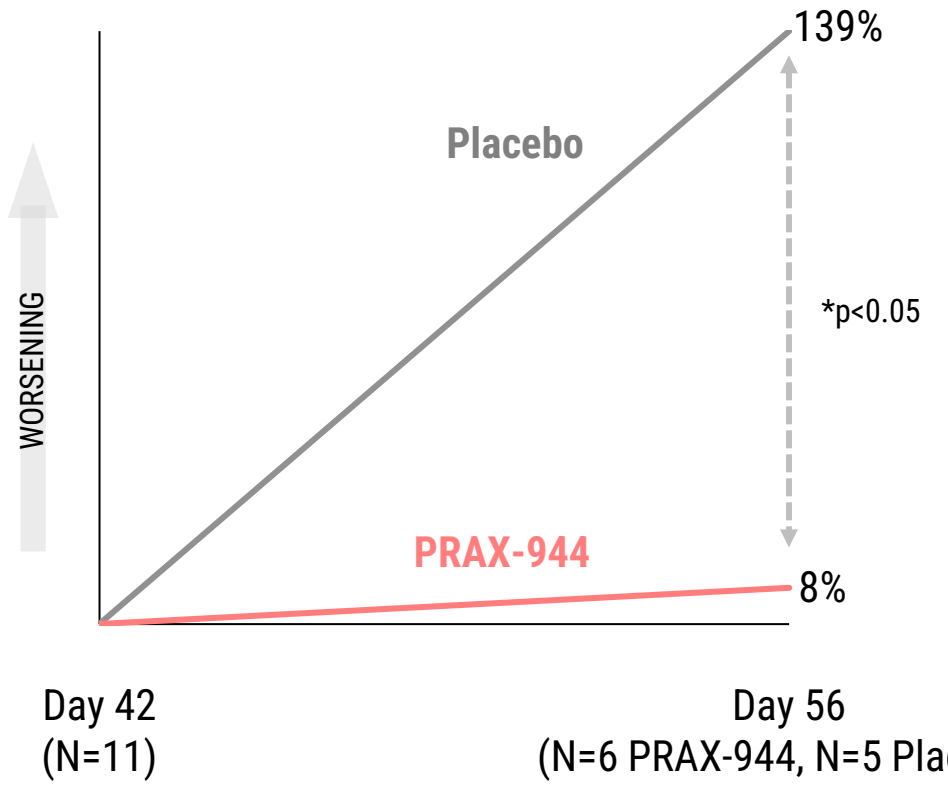
[1] Excludes the three non-evaluable patients from site suspended due to protocol violations
Source: Praxis Data on file

# Marked functional benefit observed on treatment, with withdrawal resulting in regression to baseline severity

## MODIFIED ADLs IN OPEN LABEL
## MEAN % CHANGE FROM BASELINE



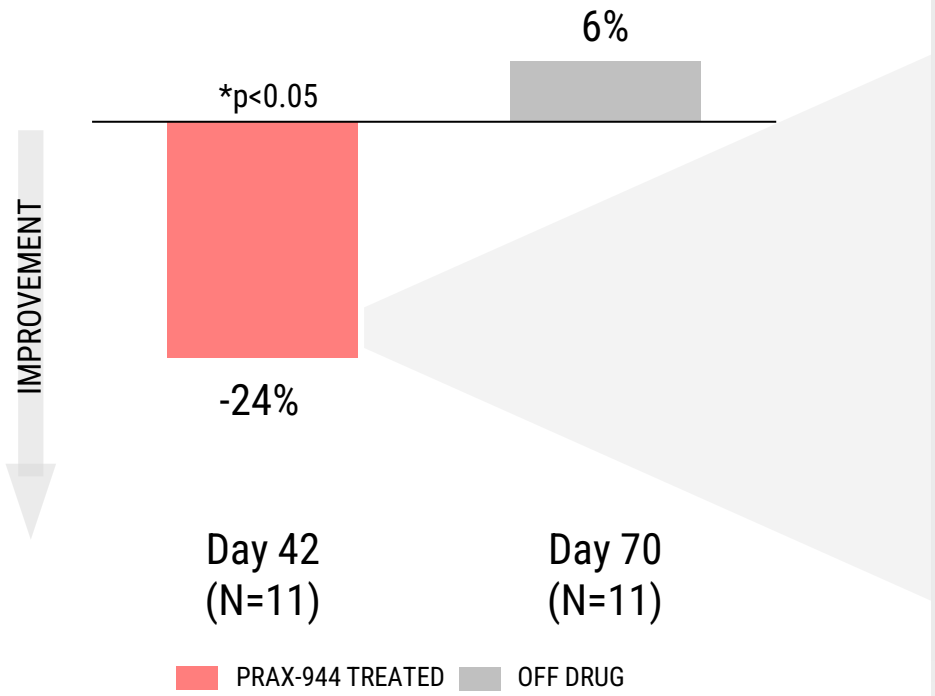

## MODIFIED ADLs IN RANDOMIZED WITHDRAWAL
## MEAN % CHANGE FROM DAY 42



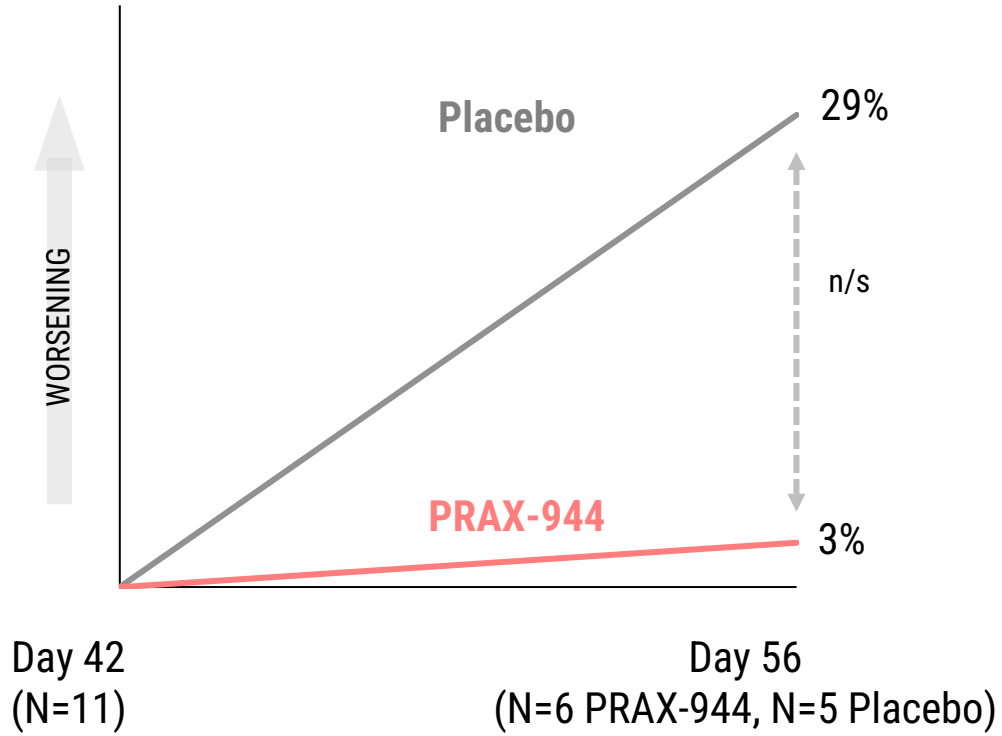

*Nominal p-value based on ANCOVA
Source: Praxis Data on file

# Functional benefit with PRAX-944 supported by tremor analysis

## KINESIA ONE IN OPEN LABEL
## MEAN % CHANGE FROM BASELINE




## KINESIA ONE IN RANDOMIZED WITHDRAWAL
## MEAN % CHANGE FROM DAY 42




*Nominal p-value based on ANCOVA
Source: Praxis Data on file

# Impact of PRAX-944 on ability to draw

## EXAMPLE OF SPIRAL TASK FROM PART B PATIENT

Day 1
Baseline

Day 42
On PRAX-944

Day 56
Blinded Off Drug

# PRAX-944 was generally well tolerated with no new safety findings

**SAFETY SUMMARY**

- Safety profile in study consistent with previous experience with PRAX-944
- 8 of 11 participants completed open-label period at highest dose of 120 mg
- 3 of 14 evaluable participants discontinued, with 1 discontinuation unrelated to study drug[1]
- All TEAEs leading to down-titration or discontinuation were mild to moderate[2]

[1] Participant had a pre-existing condition which was unrelated to study drug and required a medical procedure
[2]One severe AE of essential tremor reported while on placebo following withdrawal of PRAX-944; all other AEs mild to moderate
Source: Praxis Data on file

# PRAX-944 Phase 2a Part B - TEAE summary

**TREATMENT-EMERGENT ADVERSE EVENTS (TEAEs) IN >1 PARTICIPANT**

| PREFERRED TERM | PART B[1] (N=14) |
|---|---|
| Constipation | 6 |
| Dizziness | 4 |
| Fatigue | 3 |
| Cognitive Disorder | 2 |
| Headache | 2 |
| Insomnia | 2 |
| Paraesthesia | 2 |

[1] Excludes the three non-evaluable patients from site suspended due to protocol violations; One severe AE of essential tremor reported while on placebo following withdrawal of PRAX-944; all other AEs mild to moderate

Source: Praxis Data on file

# TEAEs leading to dose down-titration or discontinuation were mild to moderate

## TEAEs LEADING TO DOSE DOWN-TITRATION*

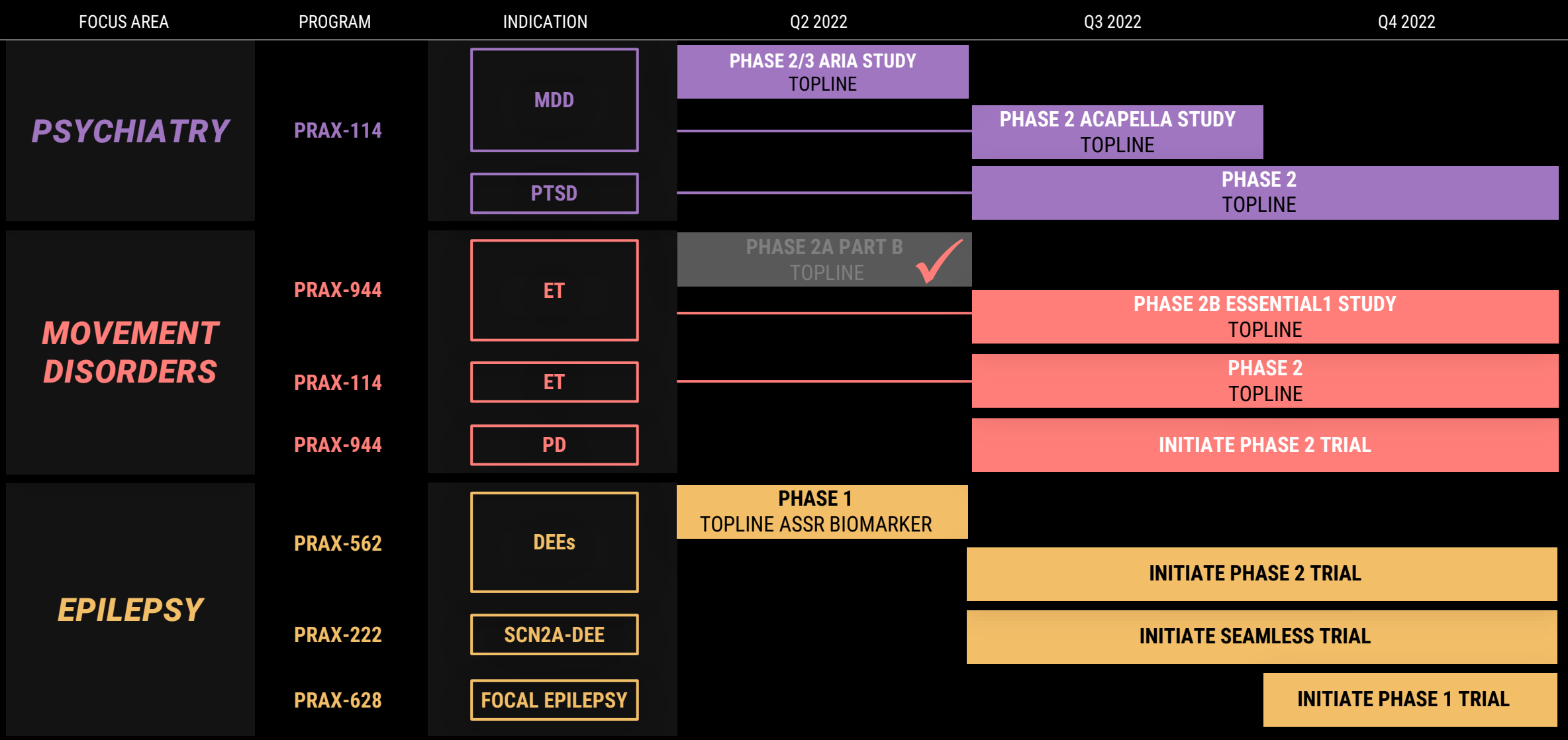
| PREFERRED TERM | PART B (N=14) |
|---|---|
| Dizziness postural | 1 |
| Paraesthesia | 1 |
| Somnolence | 1 |

## TEAEs LEADING TO STUDY DRUG DISCONTINUATION

| PREFERRED TERM | PART B[4] (N=14) |
|---|---|
| Confusional state/disturbance in attention[1] | 1 |
| Cyst[2] | 1 |
| Hypotension/gait disturbance/ muscle fatigue/speech disorder[3] | 1 |

*Protocol permitted patients to dose titrate down once during Part B
[1] Participant also down-titrated prior to discontinuation
[2] Participant had a pre-existing condition which was unrelated to study drug and required a medical procedure
[3] Same participant
[4] Suspended site had 3 participants discontinue with AEs of: dizziness, cognitive disorder (2), hallucinations
Source: Praxis Data on file

# Six phase 2 or registrational topline readouts in 2022




PRAX-114 Phase 2/3 Aria Study topline results expected in June 2022; PRAX-944 Phase 2a Part B topline results disclosed in May 2022