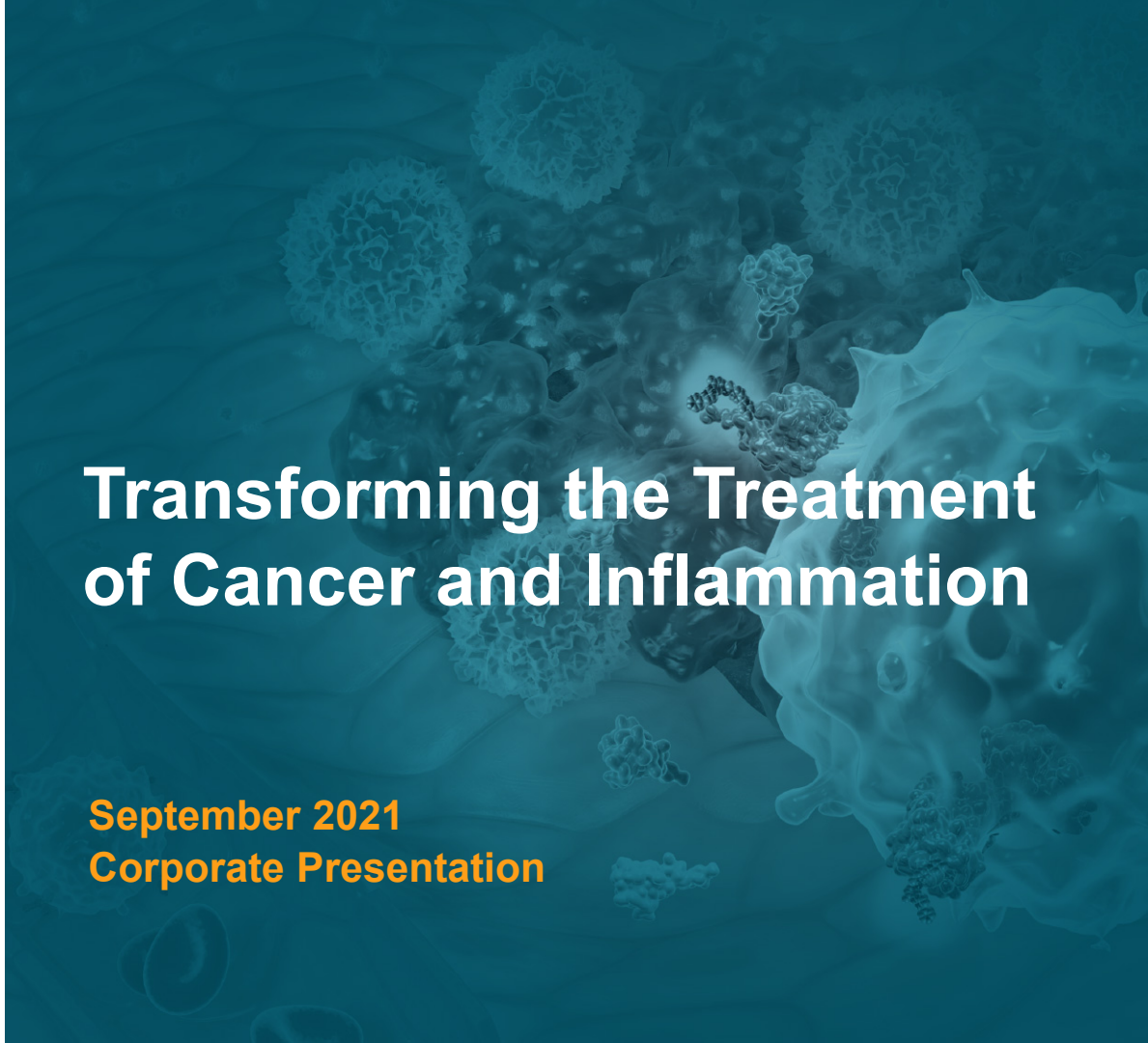
RAPT THERAPEUTICS

Transforming the Treatment of Cancer and Inflammation



September 2021
Corporate Presentation

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Oral Drugs Targeting Critical Immune Drivers of Disease

- Proprietary discovery engine
- Diversified pipeline
- Large market opportunities
- Multiple near-term clinical readouts
- Strategic collaborations

CLINICAL

RPT193 (Inflammation):

- Oral agent targets inflammatory Th2 cells
- PoC in Phase 1b achieved in AD: efficacy on all key exploratory endpoints with excellent safety and tolerability

FLX475 (Oncology): MERCK Hanmi

- Selectively targets immunosuppressive tumor T_{reg}
- PoC in Phase 2 with monotherapy and combo activity observed

DISCOVERY

HPK1 (Oncology)

Other Targets

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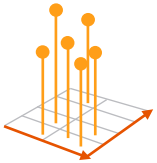
Proprietary Drug Discovery and Development Engine

R **Rapid**

- Drug discovery
- Clinical development to POC

A **Analytics**

- Interrogating clinically-relevant big datasets to identify targets and biomarkers



P **Patient selection**

- Driven by data to improve chances of clinical success

T **Targeting**

- Critical immune drivers of cancer and inflammation

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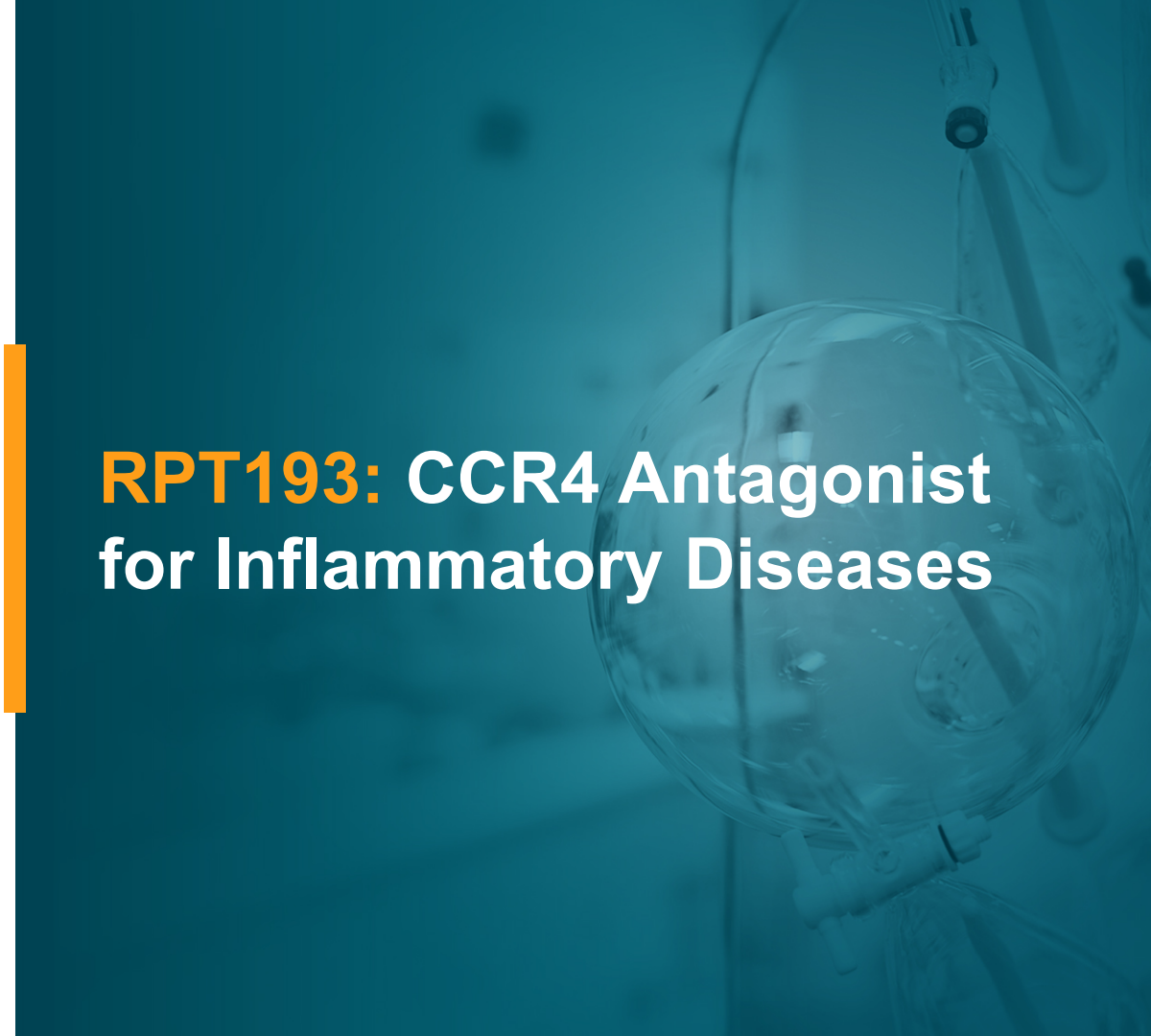
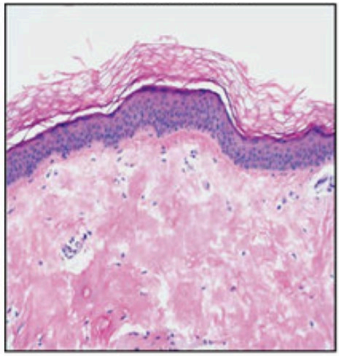
RPT193: CCR4 Antagonist for Inflammatory Diseases



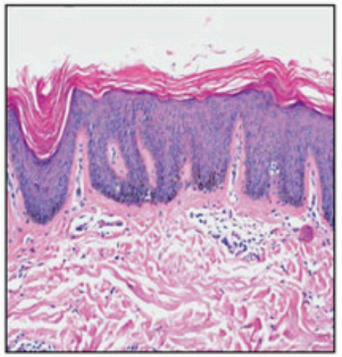
RPT193: Oral CCR4 Antagonist for Inflammatory Diseases

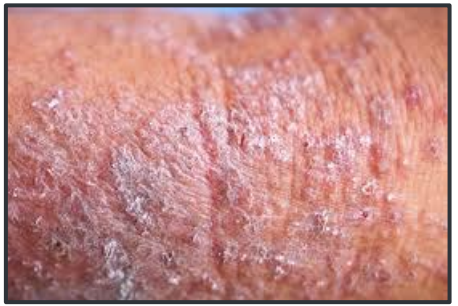
- RPT193 is a highly potent and selective once-daily oral CCR4 antagonist that targets inflammation more specifically than JAK inhibitors and acts upstream of the injectables
- Phase 1b trial demonstrated clear benefit in patients with moderate-to-severe AD, with favorable safety and tolerability
- No laboratory safety monitoring or black box warning expected
- Next steps: Phase 2b trial in AD and a Phase 2a trial in asthma

Normal Human Skin

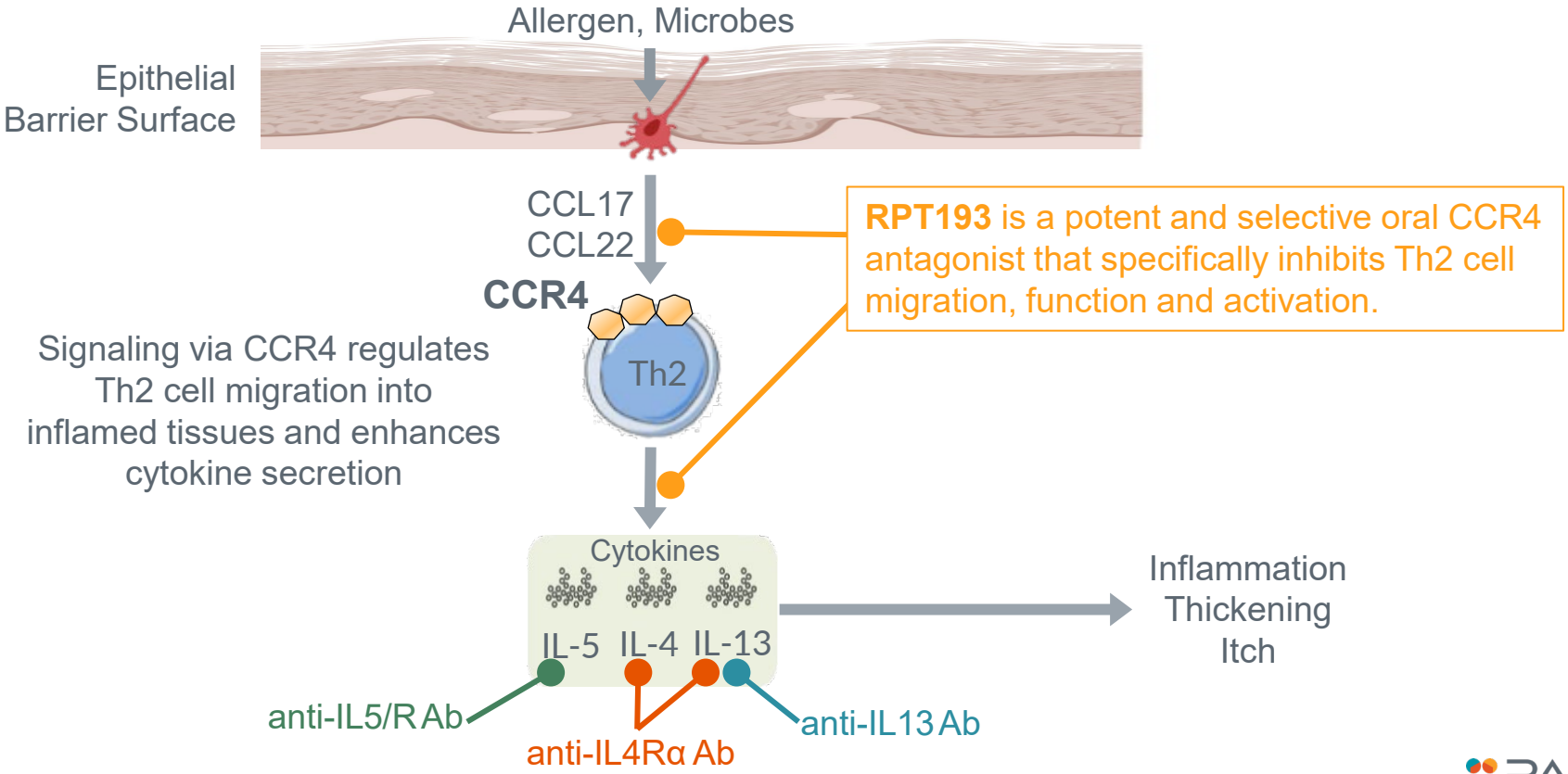


AD Lesional Skin





RPT193 Targets Th2 Cells: Key Drivers of Inflammation in Atopic Dermatitis, Asthma, and Other Diseases



Atopic Dermatitis and Asthma Represent Major Markets

- **Atopic Dermatitis (AD)**
  - Common disease affecting ~19M adults and ~10M children in the US
  - $24B projected market by 2029*
- **Asthma**
  - Asthma affects ~15M adults and children in the US
  - $21B projected market by 2029*
- **High unmet need**: a well-tolerated, safe and effective, oral drug that does not require laboratory safety monitoring
- **RPT193 has the potential to address this unmet need**

* Decision Resources Guide; EU, US, and Japan market

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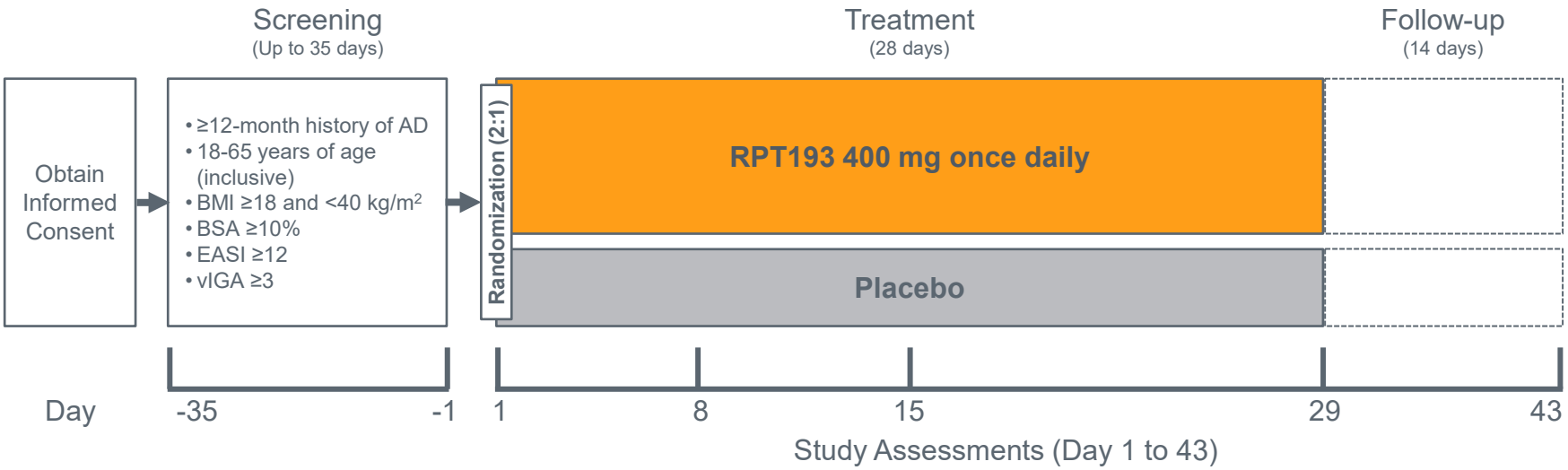
Phase 1b Trial Explored RPT193 Activity in Patients with Moderate-to-Severe Atopic Dermatitis



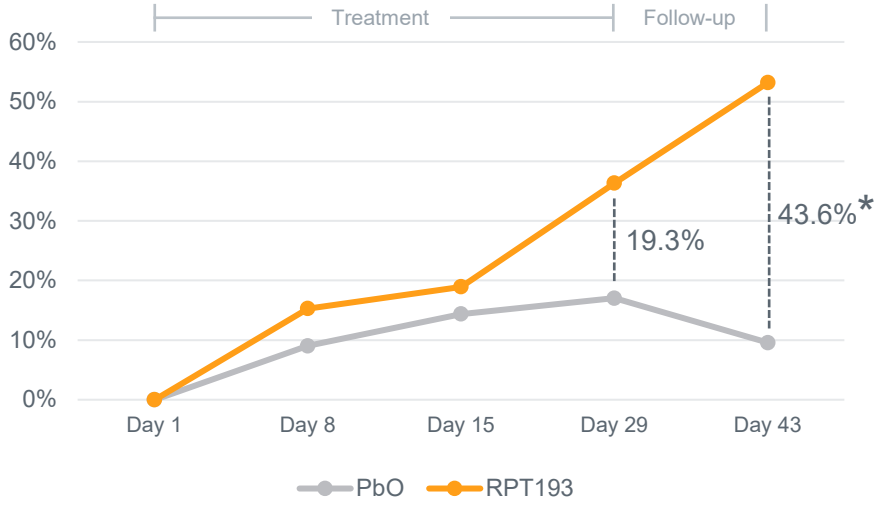
- Enrolled 31 patients into a double-blind, randomized trial with 2:1 allocation of RPT193 to placebo
- Monotherapy study: steroid and immunosuppressant washout period; rescue steroids not permitted through Day 43
- Trial was not powered for any specific endpoint
- Exploratory endpoints include: EASI, Pruritis Numerical Rating Scale (NRS), and vIGA
- Data presented are from the Intent to Treat dataset

Phase 1b Baseline Demographics

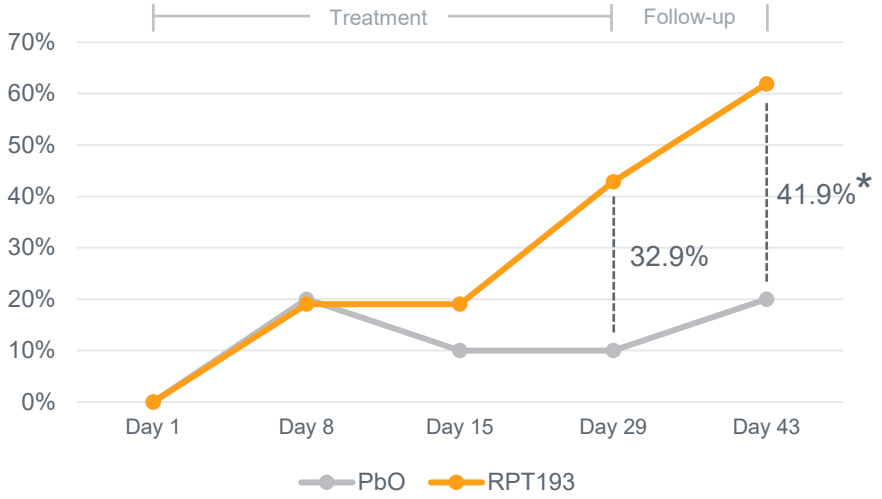
	Placebo	RPT193
N	10	21
Age, Mean (Range)	35.8 (22-64)	41.0 (19-63)
Female, n (%)	4 (40.0%)	12 (57.1%)
Baseline Characteristics		
EASI, Mean (Range)	21.07 (13.6-45.5)	18.49 (12-30)
BSA, Mean (Range)	24.5 (10-61)	23.3 (11-55)
vIGA 3, n (%)	8 (80.0%)	18 (85.7%)
Peak NRS, Mean (Range)	7.3 (3-10)	6.9 (3-10)
Peak NRS ≥4, n (%)	9 (90.0%)	20 (95.2%)

RPT193 Differentiated from Placebo for EASI and EASI-50 at Day 29 with Further Improvement at Day 43

% Improvement in EASI

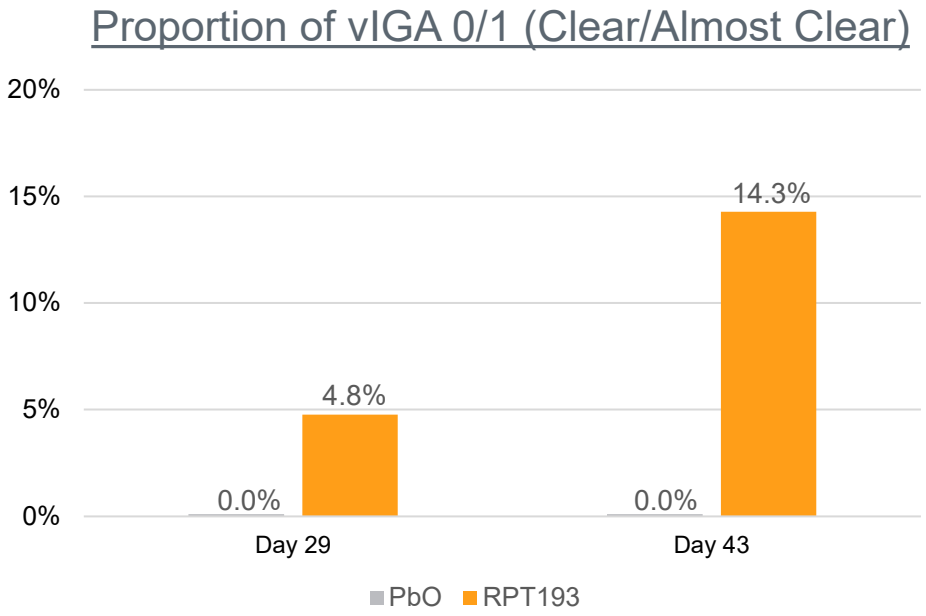


Proportion of EASI-50

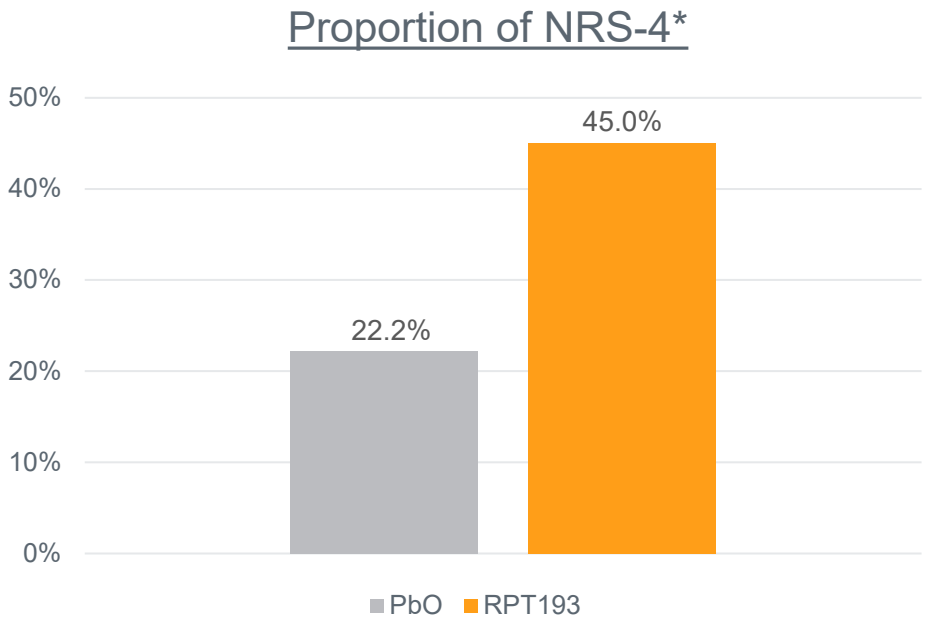


*p < 0.05

RPT193 Differentiated from Placebo for vIGA Clear/Almost Clear at Day 29 with Further Differentiation at Day 43



RPT193 Demonstrated Clinically Meaningful Improvement in Itch Compared to Placebo at Day 29

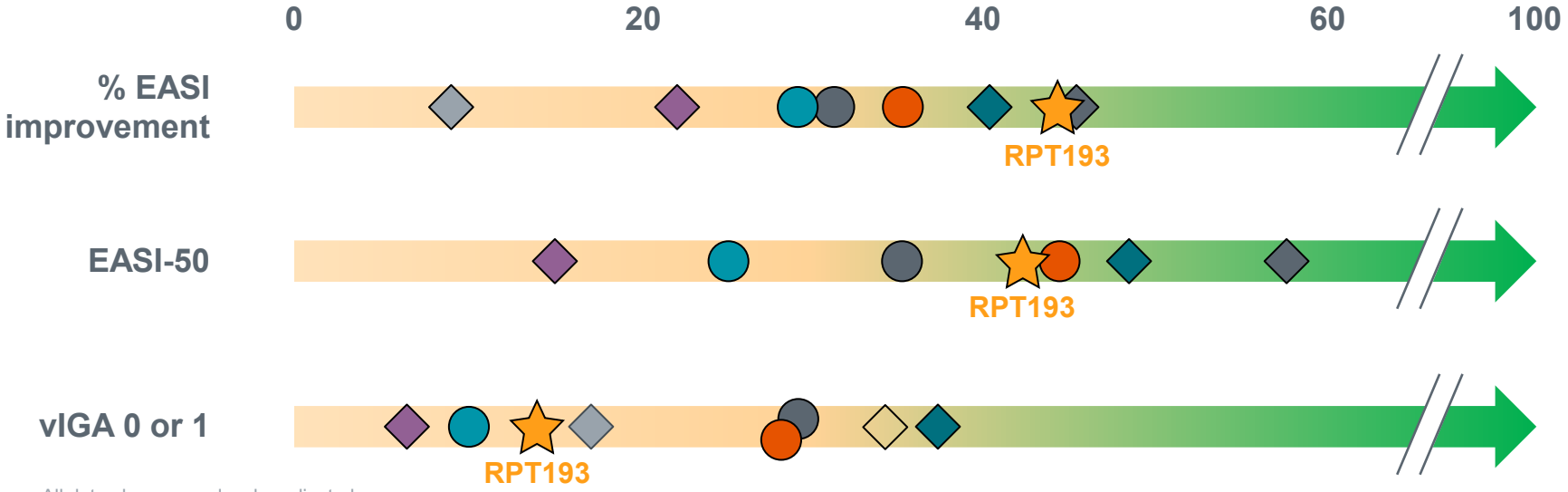


*At least a 4-point improvement among patients with a baseline pruritis NRS ≥4

Phase 1b Safety

- No SAEs reported
- All AEs reported were mild or moderate in intensity
- No clinically significant safety laboratory abnormalities observed
- Overall safety profile to date suggests a well-tolerated oral drug that should not require laboratory safety monitoring

RPT193 6-Week Efficacy Compared to Other Drugs at 12-16 Weeks*



All data shown are placebo-adjusted

RPT193 400 mg

Biologics:
- Dupilumab Ph3 (300 mg q2wk)
- Lebrikizumab Ph2 (250 mg q2wk)
- Tralokinumab Ph3 (300 mg q2wk)

Orals:
- Abrocitinib Ph3 (200 mg)
- Baricitinib Ph3 (2 mg)
- Etrasimod Ph2 (2 mg)
- Upadicitinib Ph2,3 (15 mg)

* Comparisons are based on published data and relative properties of other agents and do not reflect a head-to-head comparative study or clinical trial

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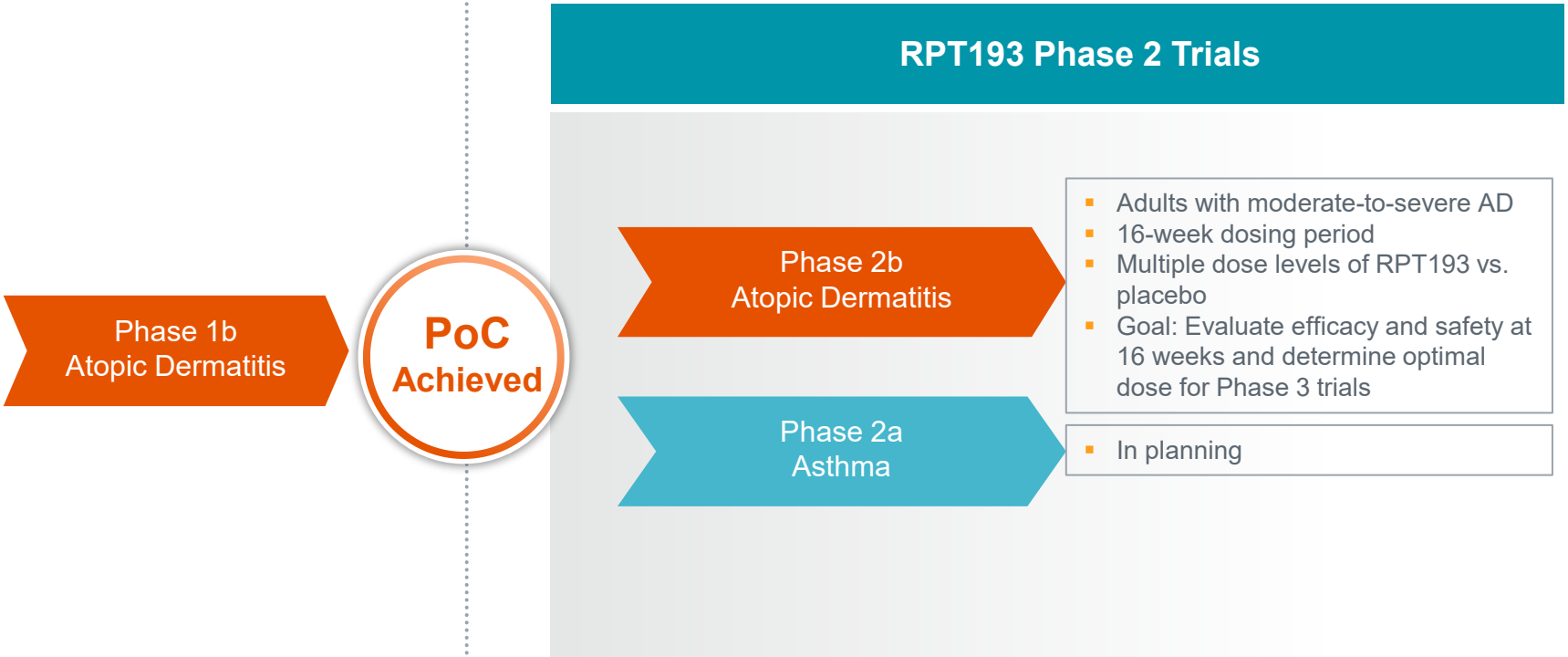
Next Steps for the RPT193 Program



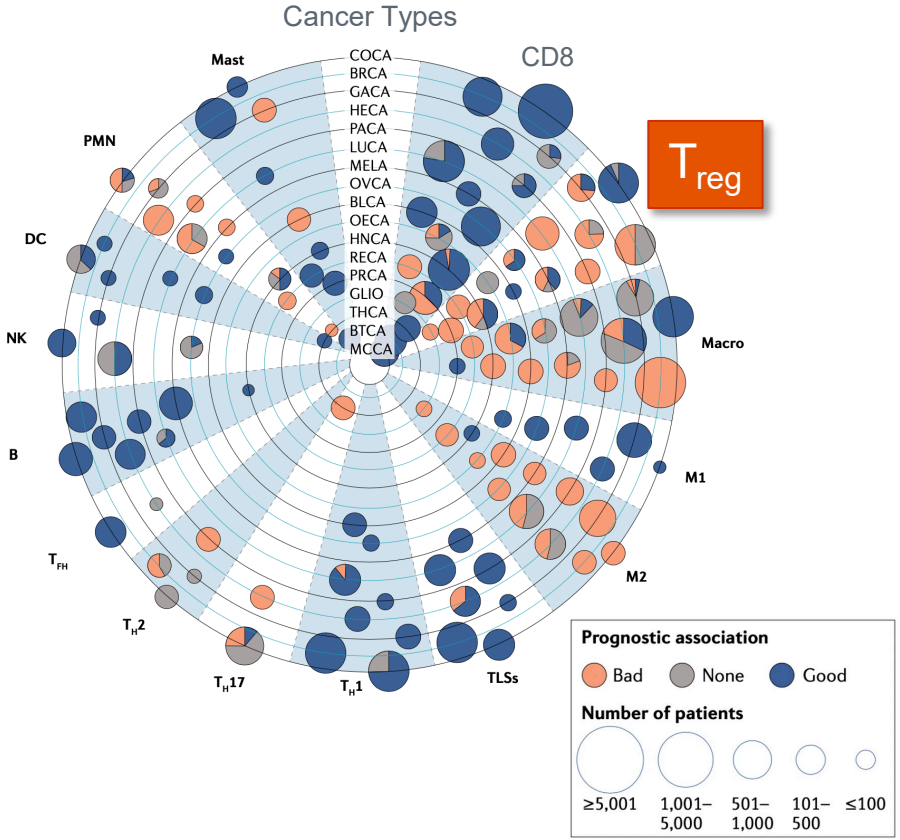
RPT193 Program Summary

- Data from the Phase 1b study in patients with atopic dermatitis demonstrated clear benefit on all key exploratory clinical endpoints including EASI and vIGA
- Continued deepening of responses through the 2-week follow-up period suggests higher levels of efficacy could be achieved in longer studies
- Profile suggests an effective, well-tolerated oral molecule not needing laboratory safety monitoring, with positioning ahead of injectables and JAK inhibitors
- Additional late-breaking Phase 1b data to be presented at EADV Congress
- Next steps: 16-week Phase 2b study in patients with moderate-to-severe AD and a Phase 2a study in patients with asthma

FLX475: CCR4 Antagonist for Oncology

T_{reg} Are Key Targets in the Tumor Microenvironment (TME)

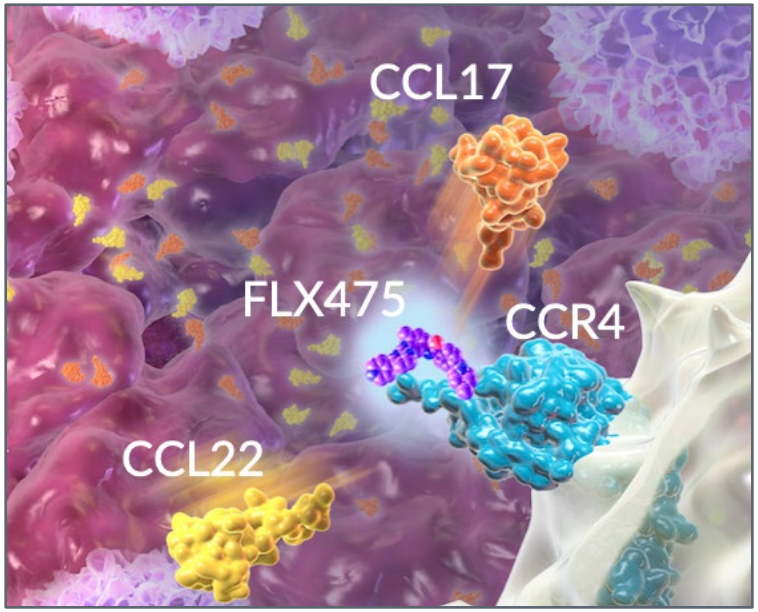
- Correlate with poor prognosis across most cancers
- Mechanism for immune evasion by viruses and tumors
- Barrier to checkpoint inhibitor efficacy
- Challenge: selective inhibition of T_{reg} in the TME
  - Depleting antibodies targeting CD25, CCR4, etc. do not appear to have adequate selectivity



Bruni D et al. *Nat Rev Cancer* 2020

FLX475: Oral CCR4 Antagonist in Phase 2

- Highly potent and selective CCR4 small molecule antagonist
- Selectively blocks tumor T_{reg} while sparing normal tissues and beneficial cells
- Potential for superior safety and efficacy compared to depleting antibodies
- Issued U.S. composition of matter patent with coverage through 2037
- Monotherapy and combination antitumor activity in charged cancers



Blocks interaction with CCR4 ligands CCL22 and CCL17 on T_{reg}

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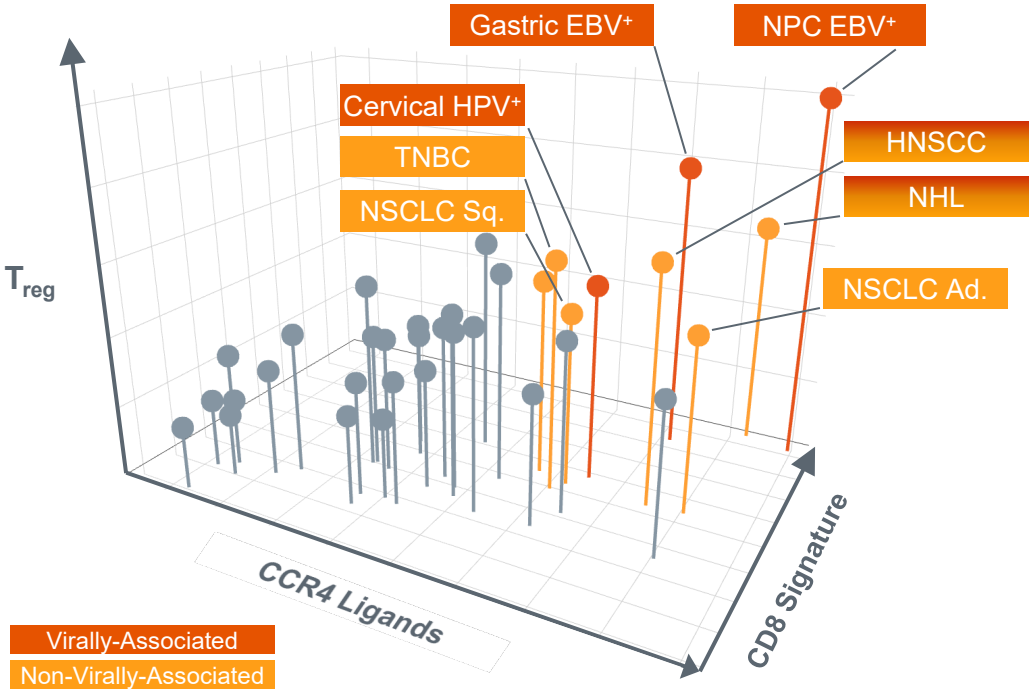
Identification and Characterization of Charged Tumors



Data from in-house analysis of TCGA database combined with other data sets;
Confirmed in > 400 tumor microarrays
The graph above reflects a logarithmic scale on each axis
NPC Nasopharyngeal; HNSCC Head & Neck Squamous Cell Carcinoma; NHL Non-Hodgkin Lymphoma; NSCLC Non-Small Cell Lung Cancer; TNBC Triple Negative Breast Cancer

- "Charged" tumors: high levels of CCR4 ligands, T_{reg} and CD8 T cells
- Potential for both monotherapy and combination activity
- Represent cancers with high unmet need and large markets
- Potential for tissue-agnostic accelerated approval in virally-associated tumors

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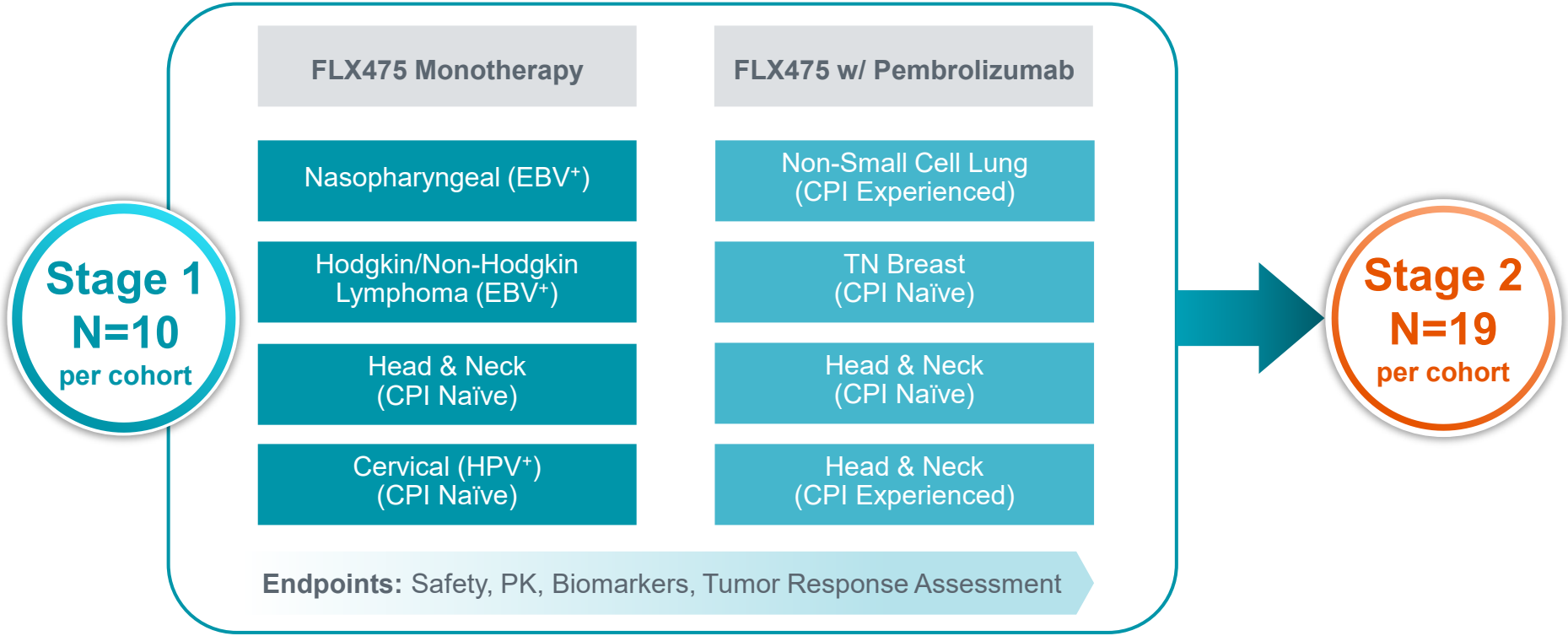
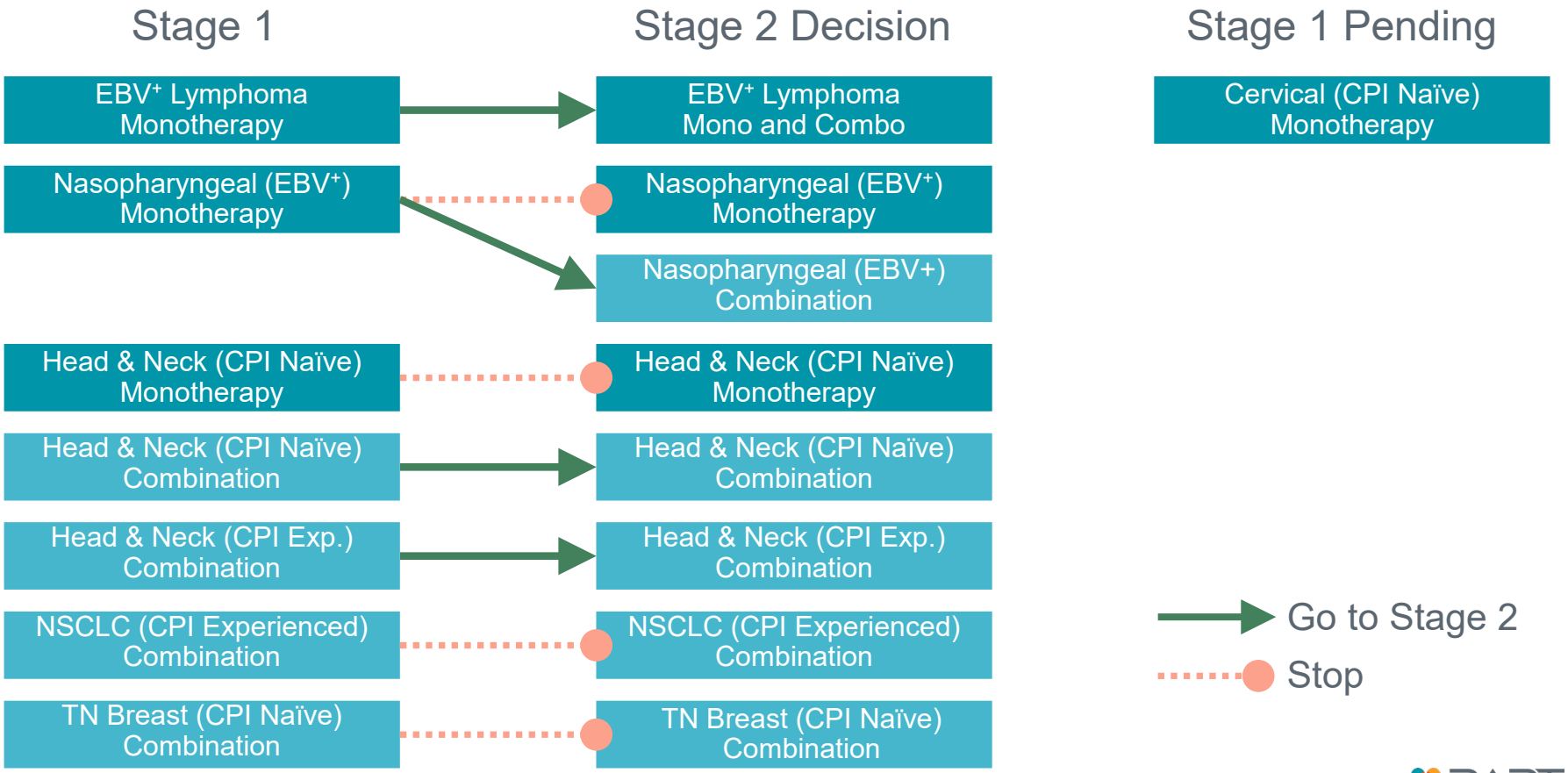
Phase 2: Gated Simon 2-Stage Design

- To evaluate the antitumor activity of FLX475 as monotherapy and in combination with pembrolizumab in charged cancers that progressed after ≥ 1 line of therapy



CPI = Checkpoint Inhibitor

Updated Stage 2 Decisions (September 2021)



FLX475 Phase 2 Program Summary

- FLX475, a highly selective tumor T_{reg} inhibitor, appears to be an active agent in charged cancers
  - Demonstrated clinical activity as monotherapy
  - Demonstrated clinical activity in combination with pembrolizumab in checkpoint-naïve cancers beyond expected from checkpoint alone
- Ungated Stage 2 expansions in 4 indications
  - EBV+ lymphoma, nasopharyngeal and head and neck cancers (CPI naïve and CPI refractory)
- Favorable safety supportive of broad combinability
- Targeting a medical conference in 2022 for data presentation

Key Takeaways and Upcoming Milestones

- **RPT193**: safe oral agent designed for an array of inflammatory diseases – Positive Phase 1b data in AD
- **FLX475**: a highly selective tumor T_{reg} inhibitor in multiple Phase 2 expansions as monotherapy and in combination with pembrolizumab
- **Next Key Milestones**
  - **Sept 2021**: RPT193 late-breaking presentation at EADV Congress 2021
  - **1H 2022**: RPT193 Phase 2b AD trial initiation
  - **2022**: FLX475 Phase 2 data update
  - **2022**: RPT193 Phase 2a asthma trial initiation

Thank You