

Serplulimab is an investigational therapy in the US and is not FDA approved. The ASTRUM-005 trial provides important research on its potential treatment for ES-SCLC.

# Serplulimab vs atezolizumab added to chemotherapy in patients with treatment-naïve ES-SCLC in the United States – ASTRIDE trial

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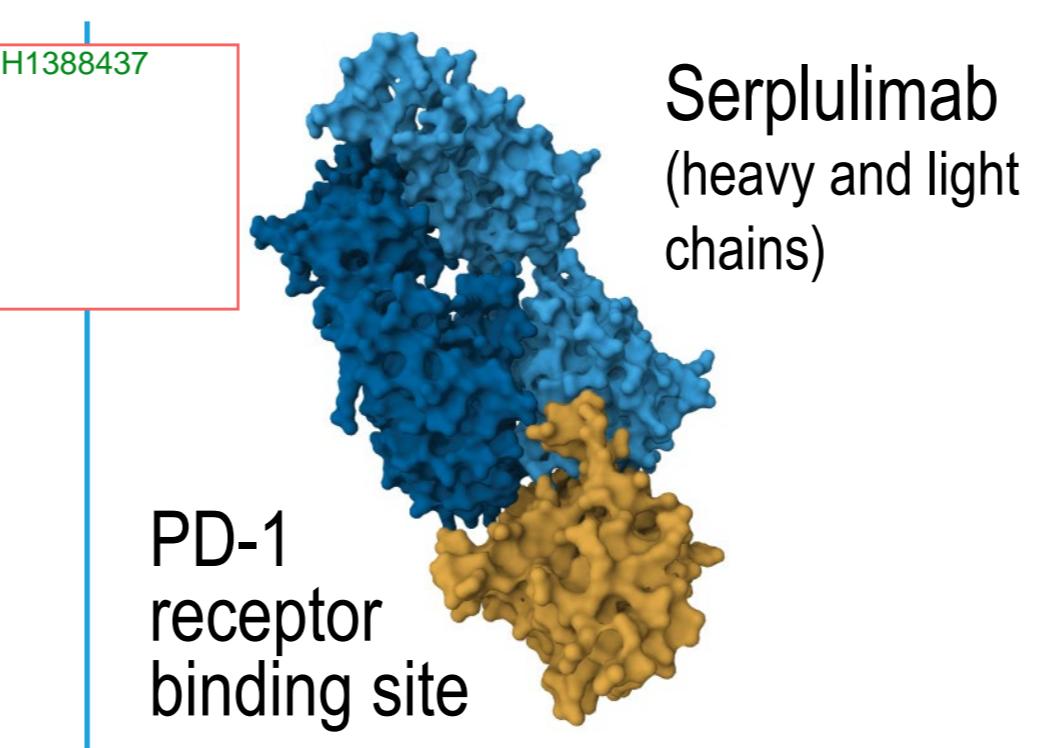
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## Background

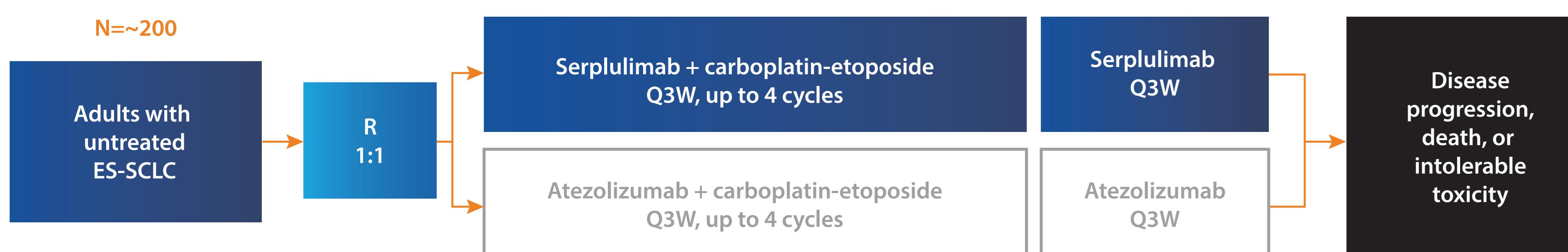
- Small cell lung cancer (SCLC) is the most aggressive subtype of lung cancer, accounting for ~15% of all lung cancer cases<sup>1</sup>
- SCLC is classified as either limited stage small cell lung cancer (LS-SCLC) or extensive stage small cell lung cancer (ES-SCLC)<sup>1</sup>
  - Approximately 2 out of 3 patients with SCLC have ES-SCLC when diagnosed<sup>1</sup>
- Following approvals of atezolizumab (2019) and durvalumab (2020) combination therapies based on the Phase 3 IMpower133 and CASPIAN studies, respectively, anti-PD-L1 + etoposide-platinum chemotherapy became the SOC in ES-SCLC; these therapies have offered ~2 month OS benefit compared to chemotherapy alone<sup>2-4</sup>
- Due to significant unmet medical need for SCLC, there are multiple ongoing studies of serplulimab, exploring its safety and efficacy in patients with both LS-SCLC and ES-SCLC<sup>5</sup>
- Results from the ASTRUM-005 study, a global, randomized, placebo-controlled Phase 3 clinical study, led to the approval of serplulimab for the 1L treatment of ES-SCLC in China, making it the world's first anti-PD-1 monoclonal antibody (mAb) to be approved in SCLC<sup>6,7</sup>
  - Serplulimab + chemotherapy showed an improvement in median OS by 4.7 months vs placebo + chemotherapy (15.8 months vs 11.1 months; HR 0.62 [95% CI: 0.50-0.76];  $P<0.001$ ) in treatment-naïve patients with ES-SCLC<sup>8</sup>
- Fosun Pharma entered into an exclusive license agreement with Shanghai Henlius Biotech, Inc. for the commercialization of serplulimab in the US<sup>9</sup>
- ASTRIKE, a head-to-head, US-based study of serplulimab + chemotherapy vs atezolizumab + chemotherapy for the treatment of 1L ES-SCLC, aims to confirm the ASTRUM-005 findings in a US-based ES-SCLC population<sup>10</sup>

## Mechanism of action of serplulimab

- Serplulimab is a novel anti-PD-1 mAb with a unique mode of recognition of the PD-1 receptor compared with currently available anti-PD-1 mAbs<sup>11</sup>
  - While serplulimab shows greater overlap of its epitope region with pembrolizumab than nivolumab, it has an opposite heavy chain and light chain usage vs pembrolizumab, resulting in a different spatial interaction with PD-1<sup>11,12</sup>
- In vitro, serplulimab was able to specifically bind the PD-1 receptor and efficiently block the PD-L1 and PD-L2 signaling pathway with relatively higher potency than nivolumab<sup>11</sup>
- In vivo, serplulimab demonstrated similar antitumor activity as pembrolizumab and the potential for complete tumor eradication, while nivolumab only demonstrated tumor growth inhibition<sup>11</sup>



## Study design: Phase 3, randomized, open-label study



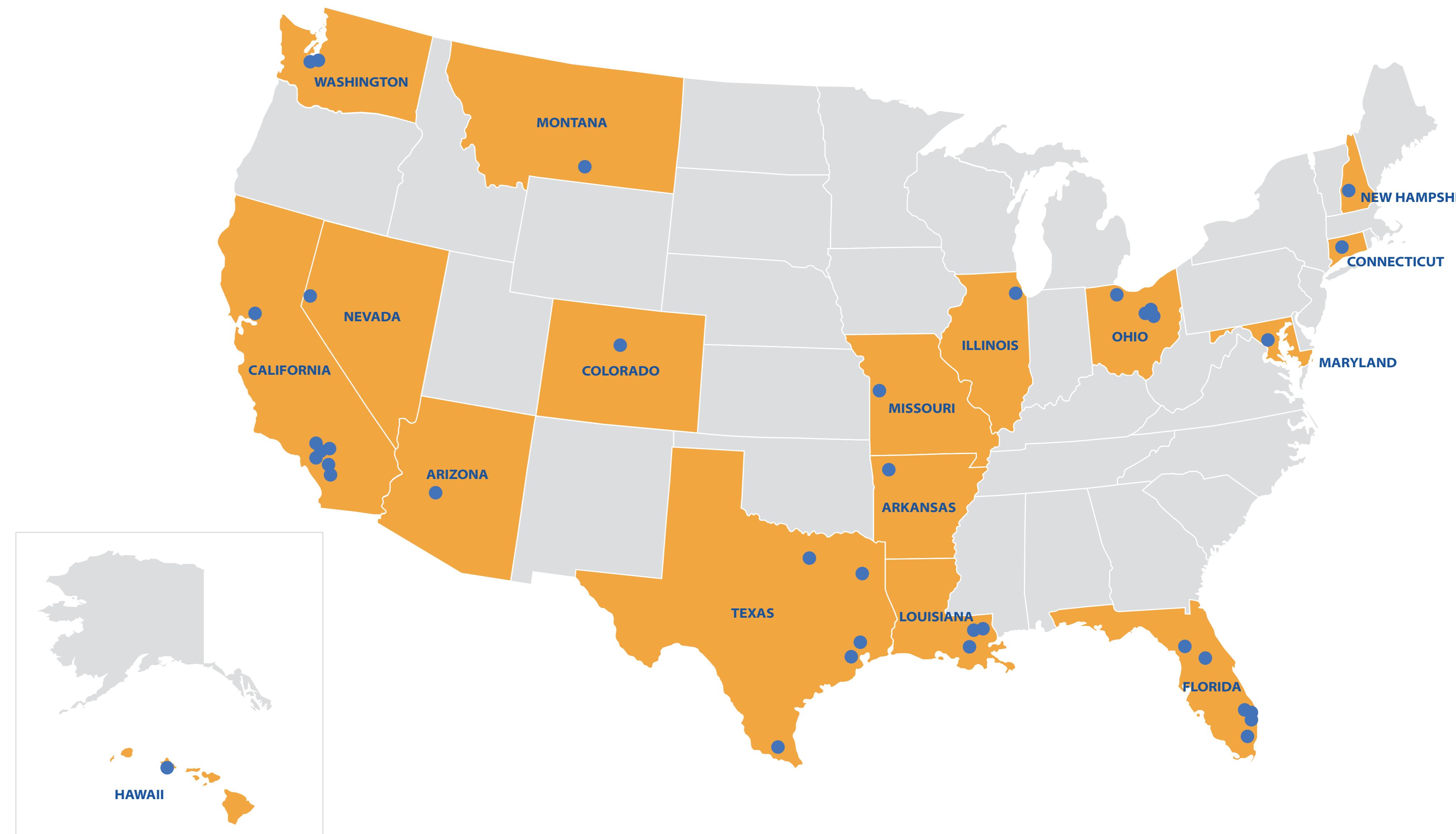
## Key endpoints

**Primary:** OS

**Secondary:** PFS, ORR, DOR, QoL, PK/PD, correlative biomarker analyses

**Safety:** AEs

## ASTRIKE sites



More information about this study can be found at <https://clinicaltrials.gov/study/NCT05468489>.

## Key inclusion criteria

- 18 years and older
- Histologically or cytologically diagnosed with ES-SCLC
- ≥1 measurable lesion
- Stable and treated brain metastases
- ECOG PS 0 or 1
- No significant organ dysfunction
- Expected survival ≥12 weeks

## Key exclusion criteria

- Histologically or cytologically confirmed mixed-stage SCLC
- Prior systemic SCLC treatments
- Grade ≥2 peripheral neuropathy
- Ejection fraction <50% or NYHA class III to IV cardiac insufficiency
- Pregnant or breastfeeding females

## Support and contact

- This study is sponsored by Shanghai Henlius Biotechnology Co., Ltd
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### Abbreviations

1L, first-line; AE, adverse event; DOR, duration of response; ES-SCLC, extensive stage small cell lung cancer; LS-SCLC, limited stage small cell lung cancer; mAb, monoclonal antibody; ORR, overall response rate; OS, overall survival; PD, pharmacodynamics; PD-1, programmed cell death 1; PD-L1, programmed death-ligand 1; PD-L2, programmed death-ligand 2; PFS, progression-free survival; PK, pharmacokinetics; PS, performance status; Q3W, every 3 weeks; QoL, quality of life; R, randomization; SCLC, small cell lung cancer; SOC, standard of care.

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