# Using Biomarker Tests to Select and Test New, Personalized Treatments for Extensive Stage Small Cell Lung Cancer, PRISM Study

**Status:** RECRUITING

## Eligibility Criteria

**Age:** 18 years and over

This study is NOT accepting healthy

**Healthy Volunteers:** volunteers

**Inclusion Criteria:**

* STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must not have a prior or concurrent malignancy whose natural history or treatment (in the opinion of the treating physician) has the potential to interfere with the safety or efficacy assessment of the investigational regimen * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must not have a history of limited stage small cell lung cancer * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must meet 1 of the following criteria prior to step 1: * Treatment naïve and planning to receive frontline induction treatment with platinum plus etoposide in combination with durvalumab, OR, * Have initiated frontline induction therapy and completed at least 1 (≥ 1) cycle and at most 3 (≤ 3) cycles of platinum and etoposide. At most 2 (≤ 2) of these cycles could have been given without durvalumab * NOTE: Participants must not have received immunotherapy other than durvalumab (e.g., atezolizumab) prior to enrollment * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must not have received any anti PD-1 or anti PD-L1 (including durvalumab \[MEDI4736\]) treatment for SCLC prior to starting frontline induction treatment for ES-SCLC * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must not have received anti PD-1 or anti PD-L1 other than durvalumab (MEDI4736) as part of frontline induction treatment for ES-SCLC. Participants must have not received atezolizumab, pembrolizumab, or nivolumab as part of frontline induction treatment * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must not have received any investigational agent for the treatment of ES-SCLC * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must not be planning to receive any concurrent non-protocol directed chemotherapy, immunotherapy, biologic or hormonal therapy for SCLC treatment while receiving treatment on this study * NOTE: If participant has bone metastases, bisphosphonates are allowed * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must not have any unresolved toxicity National Cancer Institute Common Terminology Criteria for Adverse Events (NCI CTCAE) grade ≥ 2 from previous anticancer therapy with the exception of alopecia, and vitiligo * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must be ≥ 18 years old at the time of step 1 registration * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must be able to safely receive the frontline induction treatment with platinum plus etoposide in combination with durvalumab, per the current Food and Drug Administration (FDA)-approved package insert(s), institutional guidelines, and the treating investigator's discretion * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must have Zubrod performance status of 0-2 within 28 days prior to step 1 registration * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must have fully recovered from the effects of prior surgery in the opinion of the treating investigator within 28 days prior to step 1 registration * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must not have had an allogenic organ transplantation * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must not have medical contraindications to receiving immunotherapy, including history of non-infectious pneumonitis that required steroids or active autoimmune disease that has required systemic treatment with disease modifying agents, corticosteroids or immunosuppressive drugs in the past two years. Replacement therapy (e.g. thyroxine for pre-existing hypothyroidism, insulin for type I diabetes mellitus, or physiologic corticosteroid replacement therapy for adrenal or pituitary insufficiency, etc.) is not considered a form of systemic treatment. Intra-articular steroid injections are allowed * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must not be pregnant or nursing (nursing includes breast milk fed to an infant by any means, including from the breast, milk expressed by hand, or pumped). Individuals who are of reproductive potential must have agreed to use an effective contraceptive method during protocol therapy and for 6 months following completion of protocol therapy with details provided as a part of the consent process. A person who has had menses at any time in the preceding 12 consecutive months or who has semen likely to contain sperm is considered to be of "reproductive potential." In addition to routine contraceptive methods, "effective contraception" also includes refraining from sexual activity that might result in pregnancy and surgery intended to prevent pregnancy (or with a side-effect of pregnancy prevention) including hysterectomy, bilateral oophorectomy, bilateral tubal ligation/occlusion, and vasectomy with testing showing no sperm in the semen. Participants should not breastfeed during protocol therapy and for 6 months following completion of protocol therapy * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: Participants must have adequate tumor tissue available from SCLC and agree to have these tissue specimens submitted. Participants must agree to have any leftover tissue (tissue that remains after subtype and biomarker testing) retained for the use of future correlative studies. * NOTE: After a participant has been registered to step 1 registration, the tissue must be submitted to BostonGene. Sites will receive a notification from the Southwest Oncology Group (SWOG) Statistics and Data Management Center within 19 days after tissue submission. Patients must not be registered to step 2 prior to receiving notification of cohort assignment * NOTE: A histologic review will be performed to confirm adequate cellularity for the testing. If inadequate cellularity, additional archival unstained slides from the same participant may be submitted if it does not exceed the window of starting maintenance therapy * STEP 1: SCREENING AND INDUCTION TREATMENT REGISTRATION: NOTE: As a part of the Oncology Patient Enrollment Network (OPEN) registration process the treating institution's identity is provided in order to ensure that the current (within 365 days) date of institutional review board approval for this study has been entered in the system. * Participants must be informed of the investigational nature of this study and must sign and give informed consent in accordance with institutional and federal guidelines. For participants with impaired decision-making capabilities, legally authorized representatives may sign and give informed consent on behalf of study participants in accordance with applicable federal, local, and Central Institutional Review Board (CIRB) regulations * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Site must have received notification from the SWOG Statistics and Data Management Center (SDMC) of the participant's SLFN11 testing results and have been determined to have subtype A, N, I, or P: confirmed by BostonGene and assigned to a cohort * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants may have measurable or non-measurable disease per Response Evaluation Criteria in Solid Tumors 1.1 (RECIST 1.1) and must have their disease assessed by CT of chest/abdomen/pelvis (with contrast unless contraindicated) within 28 days prior to step 2 for measurable disease or within 42 days prior to step 2 for non-measurable disease. All known sites of disease must be assessed and documented on the baseline tumor assessment form (RECIST 1.1). Any lesions assessed using a non-diagnostic PET/CT of chest/abdomen/pelvis will be considered non-measurable lesions * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants must have a CT or MRI scan of the brain to evaluate for central nervous system (CNS) disease within 42 days prior to step 2 randomization. Participant must not have leptomeningeal disease, spinal cord compression, or symptomatic brain metastases unless: (1) metastases have been locally treated and have remained clinically controlled and asymptomatic for at least 14 days following treatment, and prior to step 2 randomization, AND (2) participant has no residual neurological dysfunction and has been off corticosteroids for at least 24 hours prior to step 2 randomization * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants with untreated brain metastases must be asymptomatic and stable off steroids prior to step 2 randomization. * NOTE: Exceptions to corticosteroid criterion are: (1) intranasal, inhaled, topical steroids, or local steroid injections (e.g., intra-articular injection), (2) systemic corticosteroids at physiologic doses not to exceed 10 mg/day of prednisone or its equivalent, or (3) steroids as premedication for hypersensitivity reactions (e.g., CT scan premedication). Premedication with steroids for chemotherapy is acceptable * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants must not have experienced disease progression in the opinion of treating investigator during induction treatment and prior to step 2 * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants must have completed frontline induction therapy. Induction therapy must have included 4-6 cycles of platinum plus etoposide and 4 cycles of durvalumab (MEDI4736); at most 2 (≤ 2) cycles of platinum plus etoposide may have been given without durvalumab (MEDI4736). Durvalumab (MEDI4736)

must have been given in combination with platinum plus etoposide * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants who received consolidation thoracic radiation therapy must have completed all radiation therapy at least 14 days prior to step 2 * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: For participants not receiving consolidation thoracic radiation, step 2 registration must occur at least 3 weeks but not more than 6 weeks after the last dose of frontline induction therapy (platinum plus etoposide in combination with durvalumab \[MEDI4736\]) * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: For participants receiving consolidation thoracic radiation after induction therapy, step 2 registration must occur at least 3 weeks but no more than 8 weeks after the last dose of frontline induction therapy (platinum plus etoposide in combination with durvalumab \[MEDI4736\]) * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants must not have received atezolizumab, pembrolizumab, or nivolumab as part of their frontline induction treatment. Participants must not have received prophylactic cranial irradiation (PCI) * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants must have a complete medical history and physical within 28 days prior to step 2 * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants must have body weight \> 30 kg * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants must have Zubrod performance status of 0-2 within 28 days prior to step 2 * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Hemoglobin \> 9.0 g/dL (within 28 days prior to step 2) * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Absolute neutrophil count ≥ 1.5 x 10\^3/uL (within 28 days prior to step 2) * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Platelets ≥ 100 x 10\^3/uL (within 28 days prior to step 2) * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Total bilirubin ≤ institutional upper limit of normal (ULN) unless history of Gilbert's disease. Participants with history of Gilbert's disease must have total bilirubin ≤ 5 x institutional ULN (within 28 days prior to step 2) * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Aspartate aminotransferase (AST)/alanine transaminase (ALT) ≤ 5 × institutional ULN (within 28 days prior to step 2) * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants must have creatinine ≤ 1.5x the institutional upper limit of normal (IULN) OR measured OR calculated creatinine clearance ≥ 45 mL/min using the following Cockcroft-Gault Formula For creatinine clearance formula see the tools on the Cancer Research and Biostatistics (CRA) Workbench https://txwb.crab.org/TXWB/Tools.aspx * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants with a known history of human immunodeficiency virus (HIV)-infection must be on effective anti-retroviral therapy at registration and have undetectable viral load test on the most recent test results obtained within 6 months prior to step 2 registration * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants with a known history of chronic hepatitis B virus (HBV) infection must have undetectable HBV viral load while on suppressive therapy on the most recent test results obtained within 6 months prior to randomization, if indicated * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants with a known history of hepatitis C virus (HCV) infection must have been treated and cured or currently be receiving treatment for HVC. Participants currently being treated for HCV infection must have undetectable HCV viral load test on the most recent test results obtained within 6 months prior to randomization, if indicated * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants must not have experienced the following during induction treatment: Any grade 3 or worse immune-mediated adverse event (irAE) (except asymptomatic nonbullous/nonexfoliative rash) or any unresolved grade 2 irAE, nor have experienced a toxicity that led to permanent discontinuation of prior durvalumab (MEDI4736). Toxicity of any grade that requires replacement therapy and has stabilized on therapy (e.g., thyroxine, insulin, or physiologic corticosteroid replacement therapy for adrenal or pituitary insufficiency) is allowed * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants must not be pregnant or nursing (nursing includes breast milk fed to an infant by any means, including from the breast, milk expressed by hand, or pumped). Individuals who are of reproductive potential must have agreed to use an effective contraceptive method during protocol therapy and for 6 months following completion of protocol therapy with details provided as a part of the consent process. A person who has had menses at any time in the preceding 12 consecutive months or who has semen likely to contain sperm is considered to be of "reproductive potential." In addition to routine contraceptive methods, "effective contraception" also includes refraining from sexual activity that might result in pregnancy and surgery intended to prevent pregnancy (or with a side-effect of pregnancy prevention) including hysterectomy, bilateral oophorectomy, bilateral tubal ligation/occlusion, and vasectomy with testing showing no sperm in the semen. Participants should not breastfeed during protocol therapy and for 6 months following completion of protocol therapy * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants must not have received a live or live attenuated vaccine within 30 days prior to step 2. Examples of live vaccines include, but are not limited to, the following: measles, mumps, rubella, varicella/zoster, yellow fever rabies, Bacillus Calmette-Guerin (BCG) and typhoid vaccine. Seasonal influenza vaccines and COVID-19 vaccines are allowed, however, intranasal influenza vaccines (e.g. Flu-Mist) are live attenuated, and are not allowed * STEP 2: COHORT REGISTRATION AND MAINTENANCE RANDOMIZATION: Participants must be offered the opportunity to participate in specimen banking

## Conditions & Interventions

**Interventions:**
PROCEDURE: Biospecimen Collection, DRUG: Ceralasertib, PROCEDURE: Computed Tomography, BIOLOGICAL: Durvalumab, DRUG: Etoposide, PROCEDURE: Magnetic Resonance Imaging, BIOLOGICAL: Monalizumab, DRUG: Platinum Compound, PROCEDURE: Positron Emission Tomography, DRUG: Saruparib, RADIATION: Thoracic Radiation Therapy

**Conditions:**
Extensive Stage Lung Small Cell Carcinoma, Lung Small Cell Carcinoma, A Subtype, Lung Small Cell Carcinoma, I Subtype, Lung Small Cell Carcinoma, N Subtype, Lung Small Cell Carcinoma, P Subtype

## More Information

**Contact(s):** ctrrecruit@vcu.edu
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