Trodelvy®
(Sacituzumab govitecan)

Authorization Number: 68179
Authorization Date: 09-Sep-2021

Clinical Study Results

December 2021

Gilead Sciences Switzerland Sàrl
General-Guisan-Strasse 8
6300 Zug
Switzerland
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1. INTRODUCTION

As of 2020, Gilead discloses clinical study results of newly authorized products in Switzerland by Swissmedic according to the requirements laid out in Art. 71-73 TPO (Ordinance on Therapeutic Products).

Below you will find the information for clinical studies relevant for the marketing authorization for Trodelvy® (Sacituzumab govitecan) in Switzerland.
## 2. OVERVIEW ON CLINICAL STUDIES

<table>
<thead>
<tr>
<th>Study number</th>
<th>Study title:</th>
<th>Indication:</th>
<th>EudraCT-Number:</th>
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<tbody>
<tr>
<td>IMMU-132-05</td>
<td>An International, Multi-Center, Open-Label, Randomized, Phase III Trial of Sacituzumab Govitecan versus Treatment of Physician Choice in Patients with Metastatic Triple-Negative Breast Cancer Who Received at Least Two Prior Treatments.</td>
<td>mTNBC</td>
<td>2017-003019-21</td>
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3. STUDY SYNOPSIS IMMU-132-05

<table>
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<tr>
<th>Name of Sponsor/Company:</th>
<th>Individual Study Table Referring to Part of the Dossier</th>
<th>(For National Authority Use Only)</th>
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<tr>
<td>Immunomedics, Inc</td>
<td></td>
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</table>

**Name of Finished Product:**

Sacituzumab govitecan (SG)

**Title of Study:** An international, multi-center, open-label, randomized, Phase 3 trial of SG versus treatment of physician choice (TPC) in subjects with metastatic triple-negative breast cancer (TNBC) who received at least two prior treatments

**Investigators:**

85 investigators

**Study centers:** 85 study centers in Belgium, Canada, France, Germany, Spain, the United Kingdom, and the United States

**Publications (reference):**

**Studied period (years):**

Date first subject enrolled: 07 November 2017
Date last subject completed: based on data cut-off date of 11 March 2020

**Phase of development:**

Phase 3

**Objectives:**

**Primary Objective:**

The primary objective of the study was to compare the efficacy of SG to TPC as measured by an independently-reviewed progression free survival (PFS) in subjects with locally-advanced or metastatic TNBC previously treated with at least 2 systemic chemotherapy regimens for unresectable, locally-advanced or metastatic disease and without brain metastasis at baseline.

**Secondary Objectives:**

- PFS for the Intent-to-Treat (ITT) Population
- Overall survival (OS) in both the ITT Population and in the subgroup with brain metastasis
- Independently-determined objective response rate (ORR), duration of response (DOR), and time to onset of response according to Response Evaluation Criteria in Solid Tumors (RECIST) 1.1
- Quality of life (QOL)
- Safety, including adverse events (AEs), safety laboratories and evaluations, incidence of dose delays and dose reductions, and treatment discontinuations due to AEs

**Methodology:**

This study was a Phase 3, randomized, open-label, multicenter study of the efficacy and safety of SG in subjects with either locally-advanced or metastatic TNBC who were either refractory or had relapsed after at least 2 prior standard-of-care chemotherapy regimens. All subjects must also have received previous taxane treatment in either the adjuvant, neoadjuvant, or advanced stage. Subjects who either had a contraindication or were intolerant to taxanes were enrolled if they had received at least 1 cycle of a taxane, with either the contraindication or intolerance during or at the end of the first taxane cycle. Poly-ADP ribose polymerase (PARP) inhibitors were allowed as 1 of 2 prior standard of care chemotherapies for subjects with a documented germ-line BRCA1/BRCA2 mutation. Subjects were enrolled and randomized 1:1 to either SG or TPC (eribulin, capecitabine, gemcitabine, or vinorelbine), with randomization stratified by the number of prior treatments for advanced disease (2-3 versus >3); geographic location (North America versus rest of world); and known brain metastasis at baseline (yes or no). The number of subjects with brain metastasis was limited at 15%. Tumor response was assessed by computed tomography (CT) or magnetic resonance imaging (MRI) every 6 weeks (same imaging method throughout the study) for 9 months and then every 9 weeks thereafter until the occurrence of progression of disease requiring discontinuation of further treatment. All available CT or MRI
scans were reviewed by the Independent Review Committee (IRC). The decision to discontinue a subject for progressive disease (PD) was made by the investigator. Subjects who discontinued treatment because of toxicity continued with tumor response assessments until progression of disease or initiation of new therapy.

During study conduct, data were monitored by an independent Data Monitoring Committee (DMC). The DSMB met 4 times during the course of the study: 25 May 2018, 02 November 2018, 29 April 2019, and 27 March 2020. Following the meeting of 27 March 2020, the DMC recommended that the study be stopped and the final analysis of data conducted. At this time, 302 of the 315 prespecified events of PFS and 316 of the 330 prespecified events of OS had occurred (ie, 96% of each event). The Sponsor accepted the DMC’s recommendation and informed the US Food and Drug Administration (FDA) of the DMC’s recommendation; FDA was also provided with the data package reviewed by the DMC. FDA requested that the Statistical Analysis Plan be amended to specify the number of PFS events that would be used for the final analysis and to adjust the 2-sided alpha level for the primary analysis of PFS.

### Number of subjects (planned and analyzed):

**Planned:** 488 subjects  
**Analyzed:** 529 subjects

### Diagnosis and main criteria for inclusion:

Male and female subjects, ≥18 years of age, with either locally-advanced or metastatic TNBC who were either refractory or had relapsed after at least 2 prior standard-of-care chemotherapy regimens.

### Test product, dose and mode of administration, batch number:

SG 10 mg/kg was administered as an intravenous (IV) infusion; Batch numbers: S17C001, S17H003, S17N001, S18F023, and S18M010.

### Comparator, dose and mode of administration:

Eribulin was administered IV over 2 to 5 minutes at a dose 1.4 mg/m² at North American sites and 1.23 mg/m² at European sites on Days 1 and 8 of a 21-day cycle.  
Capecitabine 1,000 to 1,250 mg/m² was administered in a 21-day cycle, with capecitabine administered orally twice daily for 2 weeks followed by 1-week rest period.  
Gemcitabine 800-1,200 mg/m² was administered IV over 30 minutes on Days 1, 8, and 15 of a 28-day cycle.  
Vinorelbine 25 mg/m² was administered as a weekly IV injection over 6-10 minutes.

### Duration of treatment:

Treatment was continued until disease progression or unacceptable toxicity.

### Criteria for evaluation:

**Efficacy**

**Primary Efficacy Endpoint:**  
PFS by Independent Review Committee (IRC) assessment in subjects without brain metastasis at baseline (ie, brain metastasis negative [BM-ve]), defined as the time from randomization until objective tumor progression by RECIST v1.1 or death, whichever came first.

**Secondary Efficacy Endpoints:**

- PFS by IRC assessment for ITT Population  
- OS, defined as the time from the start of study treatment to death from any cause in both the BM-ve Population and ITT Population  
- ORR by IRC and investigator assessment, defined as the percentage of subjects who had a confirmed complete response (CR) or partial response (PR)  
- Time to response by the IRC and the investigator, defined as the time from randomization to the first recorded objective response (ie, CR or PR)  
- DOR by IRC and investigator assessment, defined as the number of days between the first date showing a documented response of CR or PR and the date of progression or death  
- Clinical benefit rate (CBR) by IRC and investigator assessment, defined as the percentage of subjects with either CR, PR, or stable disease (SD) with a duration of ≥6 months

**Safety Endpoints:**

Safety endpoints included AEs, serious AEs (SAEs), AEs leading to permanent discontinuation of study drug, a dose reduction, or a dose interruption, clinical laboratory parameters, vital signs, and electrocardiograms (ECGs).
**Statistical methods:**

**Analysis Populations:**
Data were summarized for the following analysis populations:

- **BM-ve ITT Population:** All subjects without brain metastasis who were randomized to the strata of no baseline brain metastasis; this is the primary analysis population for efficacy
- **ITT Population:** All subjects who were randomized, with subjects analyzed based on randomized treatment assignment. This population was used for efficacy analyses after the primary endpoint was tested in the primary analysis population of subjects without brain metastases
- **Safety Population:** All subjects who received at least 1 dose of SG or TPC

**Efficacy Endpoints:**
The overall Type I error rate was strictly controlled by a hierarchical testing strategy. The primary endpoint of PFS by IRC assessment was analyzed and tested first in BM-ve Population. If the primary analysis test was significant, subsequent key secondary endpoints (OS in BM-ve Population, PFS by IRC assessment in the ITT Population, OS in the ITT Population) were tested in a sequential manner as shown below, where a given hypothesis was only declared statistically significant if all hypotheses above it in the hierarchy were also statistically significant. Because the study was stopped when 302 of the 315 PFS events had occurred, the 2-sided alpha level was adjusted from 0.05 to 0.0443 based on a Lan-DeMets alpha-spending function approximating O’Brien-Fleming stopping boundaries. This p-value was inherited by the 3 subsequent hierarchical pre-specified secondary outcomes.

The primary analysis of PFS in the BM-ve Population for comparison between SG and the TPC group was performed using a stratified log-rank test stratified by randomization factors as employed in the randomization. Estimate of HR and its 95% confidence interval (CI) was based on stratified Cox proportional-hazards model with treatment group as the only covariate, stratified by the same stratification factors employed in the randomization. PFS was plotted over time using Kaplan-Meier (KM) curves; median PFS and its associated 95% CIs were determined by the Brookmeyer and Crowley method with log-log transformation. Sensitivity analyses were also conducted.

OS and DOR were analyzed by the same method as the primary PFS analysis.

ORR and CBR were analyzed and compared between groups using the Cochran-Mantel-Haenszel method stratified by the stratification factors used in the randomization. Two-sided 95% CIs were calculated by the Clopper-Pearson exact method.

**Safety Endpoints:**
Descriptive analyses were performed for safety.

**SUMMARY – CONCLUSIONS**

**Efficacy Results:**
The primary efficacy endpoint, PFS in the BM-Ve Population, was met. PFS was significantly longer in the SG group compared with the TPC group in the BM-ve Population. Median time to progression or death by IRC assessment in the BM-ve Population was 5.6 months in the SG group and 1.7 months in the TPC group with a difference of approximately 4 months at the median. The hazard ratio for progression or death by IRC assessment in the BM-ve Population was 0.41 (95% CI: 0.323, 0.519) which represents a 59% decrease in the hazard of disease progression or death for the SG group compared with the TPC group. Supportive analyses of PFS by IRC assessment in the ITT Population and by investigator assessment in the BM-ve and ITT Populations confirm the robustness of results for PFS.

OS was significantly longer with SG than TPC in the BM-ve and ITT Populations. The hazard ratio for death was 0.48 (95% CI: 0.383, 0.592) in the BM-ve Population and 0.51 (95% CI: 0.414, 0.624) in the ITT Population, which represent a 52% and 49% decrease in the hazard of death, respectively, for patients in the SG group compared with patients in the TPC group.

ORR by IRC assessment was significantly higher in the SG group than in the TPC group in the BM-ve Population (34.9% versus 4.7%, respectively; p<0.0001) and the ITT Population (31.1% versus 4.2%; p<0.0001). Similar results were seen for ORR by investigator assessment in the BM-ve and ITT Populations.

The Kaplan-Meier estimate of median DOR was 6.3 months (95% CI: 5.5, 9.0) and 3.6 months in the SG and TPC groups, respectively, by IRC assessment and 7.0 months (95% CI: 5.7, 8.4) and 2.9 months (95% CI: 2.8, 4.2) in the SG and TPC groups, respectively, by investigator assessment.
Sensitivity analyses confirm the robustness of results and subgroup analyses confirm the consistency of results for PFS, OS, and ORR.

**Safety Results:**
- GI events (nausea and diarrhea), myelosuppression (primarily neutropenia and anemia), fatigue, and alopecia were reported at a higher incidence in the SG group compared with the TPC group.
  - Most of the GI and myelosuppressive events seen with SG were grade 1 or grade 2, nonserious and did not require permanent discontinuation of treatment or either a dose reduction or treatment interruption. These events were managed by routine supportive care, including anti-emetics, anti-propulsives, and immunostimulants.
  - Despite the higher occurrence of neutropenia with SG, few cases were febrile (5.8% and 2.7% in the SG and TPC groups, respectively). However, there was a higher incidence of febrile neutropenia in subjects who were homozygous for the UGT1A1 *28 allele compared with subjects who had either 1 copy or no copies of the *28 allele (17.6% versus 2.7% and 5.2%, respectively).
  - Additionally, grade 3 or grade 4 infections were infrequent and the incidence of serious infections was similar in the SG and TPC groups (8.1% and 6.7%, respectively).
  - Fatigue and alopecia were also primarily grade 1 or grade 2 and were nonserious events. Only 0.8% and 0.4% of the patients in the SG and TPC groups permanently discontinued treatment because of fatigue.
- No cases of anaphylaxis were seen with SG.
- Fatal AEs within 30 days of the last SG dose were infrequent. Only 1 patient (0.4%) in the SG group (unrelated respiratory failure; unrelated) compared with 3 patients (1.3%) in the TPC group (related neutropenic sepsis and unrelated sepsis and general physical health deterioration) had an AE with a fatal outcome.
- A similar percentage of patients in the SG and TPC groups had at least one SAE (26.7% and 28.1%, respectively). The most common SAEs in the SG group compared with the TPC group were febrile neutropenia (5.0% vs 1.8%), diarrhea (3.5% vs no patients), and pneumonia (2.7% vs 1.8%).
- A similar percentage of patients in the SG and TPC groups (4.7% and 5.4%, respectively) had an AE leading to permanent discontinuation of study drug. The AEs leading to permanent discontinuation of study drug were varied and none occurred in ≥2 subjects in the SG group.
- AEs leading to a dose reduction occurred in a lower percentage of patients in the SG group compared with the TPC group (21.7% and 26.3%, respectively).
- Diarrhea was the only AE leading to a dose reduction that occurred in a higher (≥2%) percentage of patients in the SG group compared with the TPC group (4.7% and 0.4%, respectively).
- AEs leading to a treatment interruption occurred in a higher percentage of patients in the SG group compared with the TPC group (62.8% and 38.8%, respectively). AEs leading to a treatment interruption that occurred in a higher (≥5%) percentage of patients in the SG group than TPC group were neutropenia (28.3% and 12.1%, respectively), neutrophil count decreased (19.4% and 10.3%, respectively), and diarrhea (5.4% and 0.4%).
- No evidence for liver or kidney injury was seen with SG.

**Overall Conclusions:**
SG provides a significant benefit over single-agent chemotherapy for heavily pretreated TNBC patients. SG has a manageable safety profile.

**Date of the report:** 26 Oct 2020
### 3.1. Protocol Amendments and Description

<table>
<thead>
<tr>
<th>Protocol Amendment Date</th>
<th>No. of Patients Enrolled</th>
<th>Key Changes</th>
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</table>
| Amendment 1 05 May 2017  | no patients              | Added guidelines for infusion reactions, dose delay, dose reduction and treatment discontinuation  
Added the inclusion criterion that all patients should have been previously treated with taxane regardless of disease stage (adjuvant, neoadjuvant or advanced) when it was given  
Revised the inclusion criterion that patients with treated, non-progressive brain metastases must have stable MRI scans for at least 3 months, including within 4 weeks of study entry  
Added collection of BRCA1 and BRCA2 mutational status, if known  
Removed baseline brain imaging requirement to rule out brain metastases  
Removed the CTCAE PRO questionnaire |
| Amendment 2 31 Jul 2017 | 246 patients            | Revised the CT/MRI scans from every 6 weeks for 24 weeks to every 6 weeks for 36 weeks |
| Amendment 3 22 Feb 2018 | no patients             | Allowed patients with locally advanced TNBC to be enrolled  
Sample size increased from 328 to 488 patients  
Defined as <10% expression for ER and PR and negative for human epidermal growth factor receptor 2 HER2 by in-situ hybridization  
Added the secondary objective and secondary efficacy endpoint of PFS in the ITT Population  
Added that ORR and PFS would also be determined by the investigator  
Added PFS and OS in the ITT Population  
Added an exploratory analysis of Trop-2 tumor expression and efficacy  
Increased the sample size and number of participating sites  
Limited the number of patients with brain metastasis at 15%  
Added eligibility requirements for patients who had either a contraindication or were intolerant to taxanes  
Excluded patients who had received >5 prior standard of care chemotherapies for locally advanced or metastatic disease  
Excluded patients with active chronic inflammatory bowel disease (ulcerative colitis, Crohn disease) and patients with a history of bowel obstruction  
Excluded patients who had received a live vaccine within 30 days of randomization |
| Amendment 4 11 May 2018 | 382 patients            | Removed secondary objective and secondary efficacy endpoint of PFS by investigator assessment  
Added inclusion criteria that defined stable CNS disease for patients with brain metastasis  
Removed the exclusion of patients who had received >5 prior standard of care chemotherapies for locally advanced or metastatic disease  
Excluded patients who had previously received irinotecan  
Excluded patients with rapid deterioration during screening  
Added a hierarchical testing strategy for efficacy |
## Protocol Amendment Details

<table>
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<th>Protocol Amendment</th>
<th>Key Changes</th>
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| Amendment 5        | Removed assessment of other tumor markers  
Removed assessment of other tumor markers  
Clarified that both total and free SN-38 would be assessed  
Added that patients who were receiving clinical benefit from SG at the end of the study would be enrolled in a rollover study to ensure continued access to SG  
Added that disease progression was not to be reported as an AE  
Removed the interim futility analysis for PFS  
Added that the significance level for the final analysis of OS in the ITT population would be determined by the Lan-DeMets spending function to ensure alpha was controlled at a 2-sided alpha of 0.05<sup>a</sup> |
| Amendment 6        | Clarified PK sampling time points  
Subsequently changed to a 2-sided alpha of 0.0443 in a SAP amendment since 302 of the prespecified 315 PFS events was used in the final analysis  
AE=adverse event; BM-ve=brain metastasis negative; CNS=central nervous system; CT=computed tomography; CTCAE=Common Terminology Criteria for Adverse Events; ER=estrogen receptor; HER2=human epidermal growth factor receptor 2; ITT=intent-to-treat; PFS=progression-free survival; ORR=objective response rate; OS=overall survival; PK=pharmacokinetic; PR=progesterone receptor; PRO=Patient-reported Outcome; SAP=Statistical Analysis Plan; SG=sacituzumab govitecan; TNBC=triple-negative breast cancer |

<sup>a</sup>Subsequently changed to a 2-sided alpha of 0.0443 in a SAP amendment since 302 of the prespecified 315 PFS events was used in the final analysis.

### 3.2. IMMU-132-05: List of Principal Investigators

<table>
<thead>
<tr>
<th>Principal Investigator</th>
<th>Study Site</th>
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</table>
| PPD                    | Tennessee Oncology, PLLC  
250 25th Avenue North  
Suite 100  
Nashville TN 37203  
USA |
| PPD                    | Florida Cancer Specialists & Research Institute  
551 N Cattlemen Rd  
Suite 101  
Sarasota FL 34232  
USA |
| PPD                    | Research Medical Center  
2340 East Meyer Blvd  
Kansas City MO 64132  
USA |
| PPD                    | Center for Cancer and Blood Disorders  
800 W Magnolia Ave  
Fort Worth TX 76104  
USA |
<table>
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<tr>
<th>Principal Investigator</th>
<th>Study Site</th>
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<tr>
<td>PPD</td>
<td>Vanderbilt Breast Center at One Hundred Oaks&lt;br&gt;719 Thompson Lane&lt;br&gt;Suite 25000&lt;br&gt;Nashville TN 37204&lt;br&gt;USA</td>
</tr>
<tr>
<td>Aditya Bardia</td>
<td>Massachusetts General Hospital&lt;br&gt;55 Fruit Street&lt;br&gt;Boston MA 02114&lt;br&gt;USA</td>
</tr>
<tr>
<td>Aditya Bardia</td>
<td>Dana-Farber Cancer Institute&lt;br&gt;450 Brookline Avenue&lt;br&gt;Boston, MA 02215-5418&lt;br&gt;USA</td>
</tr>
<tr>
<td>PPD</td>
<td>Georgetown University Medical Center&lt;br&gt;3800 Reservoir Road NW&lt;br&gt;Washington DC 20007&lt;br&gt;USA</td>
</tr>
<tr>
<td>PPD</td>
<td>UF Health Cancer Center at Orlando Health&lt;br&gt;1400 South Orange Avenue&lt;br&gt;Orlando FL 32806&lt;br&gt;USA</td>
</tr>
<tr>
<td>PPD</td>
<td>The University of Chicago Medical Center&lt;br&gt;5841 S. Maryland Ave.&lt;br&gt;Chicago IL 60637&lt;br&gt;USA</td>
</tr>
<tr>
<td>PPD</td>
<td>Swedish Cancer Institute&lt;br&gt;1221 Madison Street&lt;br&gt;Seattle WA 98104&lt;br&gt;USA</td>
</tr>
<tr>
<td>PPD</td>
<td>Tennesseee Oncology - Chattanooga Oncology &amp; Hematology Associates&lt;br&gt;605 Glenwood Dr&lt;br&gt;Suite 200&lt;br&gt;Chattanooga TN 37404&lt;br&gt;USA</td>
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<tr>
<td>PPD</td>
<td>University of Colorado Hospital - Anschutz Cancer Pavilion&lt;br&gt;12648 East 17th Avenue&lt;br&gt;Aurora CO 80045&lt;br&gt;USA</td>
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<tr>
<td>PPD</td>
<td>Florida Cancer Specialists &amp; Research Institute&lt;br&gt;1309 North Flagler Drive&lt;br&gt;West Palm Beach FL 33401&lt;br&gt;USA</td>
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<td>Study Site</td>
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</table>
| PPD                    | Columbia University Medical Center  
161 Fort Washington Avenue  
Herbert Irving Pavilion  
New York NY 10032  
USA |
| PPD                    | Florida Cancer Specialists & Research Institute- Fort Myers Broadway Office  
3840 Broadway  
Fort Myers FL 33901  
USA |
| PPD                    | Virginia G. Piper Cancer Center at HonorHealth  
800 East 28th Street  
Suite 602  
Minneapolis MN 55407  
USA |
| PPD                    | Northside Hospital  
1835 Savoy Dr Ste 300  
Atlanta GA 30341  
USA |
| PPD                    | Washington University School of Medicine  
660 S Euclid Avenue  
St. Louis MO 63110  
USA |
| PPD                    | Texas Oncology - Baylor Charles A. Sammons Cancer Center  
3535 Worth Street  
Dallas TX 75246  
USA |
| PPD                    | Rocky Mountain Cancer Centers  
1700 S Potomac Street  
Aurora CO 80012  
USA |
| PPD                    | Virginia Cancer Specialists, PC  
8503 Arlington Blvd  
Suite 400  
Fairfax VA 22031  
USA |
| PPD                    | Blue Ridge Cancer Care  
1900 Electric Road  
First Floor  
Salem VA 24153  
USA |
<table>
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<tr>
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<th>Study Site</th>
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| PPD                    | US Oncology Research Pharmacy  
910 East Houston Street  
Suite 100  
Tyler TX 75702  
USA |
| PPD                    | Virginia Oncology Associates, P.C.  
5900 Lake Wright Drive  
Suite 300  
Norfolk VA 23502  
USA |
| PPD                    | Texas Oncology-Denton  
2600 Scripture Street  
Denton TX 76210  
USA |
| PPD                    | Texas Oncology-Plano East  
3705 W. 15th Street  
Plano TX 75075-7787  
USA |
| PPD                    | Miami Cancer Institute – Baptist Health South Florida  
8900 North Kendall Drive  
Miami FL 33176  
USA |
| PPD                    | Illinois Cancer Specialists  
880 W. Central Road  
Suite 8200  
Arlington Heights IL 60005  
USA |
| PPD                    | University of Kansas Cancer Center - The Richard and Annette Bloch Cancer Care Pavilion  
2330 Shawnee Mission Parkway  
Westwood KS 66205-2005  
USA |
| Aditya Bardia          | Beth Israel Deaconess Medical Center (BIDMC)  
330 Brookline Avenue  
Boston MA 02215-5400  
USA |
| PPD                    | University of Pittsburgh Cancer Institute  
300 Halket Street  
Pittsburgh PA 15213  
USA |
| PPD                    | Methodist Hospital  
6550 Fannin Street SM1661  
Houston TX 77030  
USA |
<table>
<thead>
<tr>
<th>Principal Investigator</th>
<th>Study Site</th>
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| PPD                    | University of California, San Francisco (UCSF) - Innovation, Technology & Alliances  
1825 4th Street  
San Francisco CA 94158  
USA |
| PPD                    | UCLA Jonsson Comprehensive Cancer Center  
2020 Santa Monica Boulevard  
Suite 600  
Santa Monica CA 90404  
USA |
| PPD                    | Mayo Clinic Cancer Center (MCCC) - Rochester  
200 First Street SW  
Rochester MN 55905  
USA |
| PPD                    | Providence Medical Group  
4805 NE Glisan Street  
Portland OR 97213  
USA |
| PPD                    | Southern Cancer Center  
29653 Anchor Cross Blvd  
Mobile AL 36526  
USA |
| PPD                    | Maryland Oncology Hematology, PA- Clinton  
7704 Matapeake Business Drive  
Suite 200  
Brandywine MD 20613  
USA |
| PPD                    | New York Oncology Hematology, PC  
400 Patroon Creek Boulevard  
Suite 1  
Albany NY 12206  
USA |
| PPD                    | Memorial Sloan-Kettering Cancer Center  
1275 York Ave  
New York NY 10065  
USA |
| PPD                    | Norwalk Hospital  
34 Maple Street  
Norwalk CT 06856  
USA |
<table>
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<tr>
<th>Principal Investigator</th>
<th>Study Site</th>
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| PPD                    | UNC Hospitals, The University of North Carolina at Chapel Hill  
101 Manning Drive  
Chapel Hill NC 27599-7600  
USA |
| PPD                    | University Cancer & Blood Center, LLC  
3320 Old Jefferson Road  
Building 700  
Athens GA 30607  
USA |
| PPD                    | The Ohio State University Wexner Medical Center James Cancer Hospital  
460 W 10th Avenue  
Columbus OH 43210  
USA |
| PPD                    | Sylvestor Comprehensive Cancer Center  
1475 N.W. 12th Avenue  
Miami FL 33136  
USA |
| PPD                    | North Shore Hematology Oncology Associates DBA NY Cancer and Blood Specialist  
1201 Rte.112  
Suite 350  
Port Jefferson NY 11776  
USA |
| PPD                    | Allegheny General Hospital  
320 East North Avenue  
Pittsburgh PA 15212  
USA |
| PPD                    | The West Clinic, P.C. d/b/a West Cancer Center West Cancer Center  
7945 Wolf River Blvd  
Germantown TN 38138  
USA |
| PPD                    | Rutgers Cancer Institute of New Jersey  
195 Little Albany Street  
New Brunswick NJ 08903  
USA |
| Aditya Bardia          | Massachusetts General Hospital  
55 Fruit Street  
Boston MA 02114  
USA |
<table>
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<td>PPD</td>
<td>Jewish General Hospital 3755 Côte-Sainte-Catherine Montreal QC H3T 1E2 Canada</td>
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<td>PPD</td>
<td>Cross Cancer Institute 11560 University Avenue Edmonton AB T6G 1Z2 Canada</td>
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<td>PPD</td>
<td>Nova Scotia Cancer Center 5820 University Avenue Halifax NS B3H 1V7 Canada</td>
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<tr>
<td>PPD</td>
<td>Clinique Sainte-Elisabeth Place Louise Godin 15 Namur 5000 Belgium</td>
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<tr>
<td>PPD</td>
<td>Universitaire Ziekenhuizen Leuven Herestraat 49 Leuven 3000 Belgium</td>
</tr>
<tr>
<td>PPD</td>
<td>Institut Jules Bordet Rue Héger-Bordet 1 Bruxelles 1000 Belgium</td>
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<tr>
<td>PPD</td>
<td>Universitair Ziekenhuis Brussel Laarbeeklaan 101 Brussel 1090 Belgium</td>
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<td>PPD</td>
<td>Institut Curie 26 Rue d'Ulm Paris 75005 France</td>
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<td>Institut de Cancerologie de l'Ouest- Centre Rene Gauducheau Rue Moise-Marcinhes 7 Meyrin-Geneva 1217 France</td>
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<td>PPD</td>
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</tr>
<tr>
<td>Principal Investigator</td>
<td>Study Site</td>
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</table>
| PPD                    | Institut Gustave Roussy  
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A Coruña 15006  
Spain |
| PPD                    | Hospital Universitario Vall d'Hebron  
Passeig de la Vall d'Hebron, 119-129  
Barcelona 08035  
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| PPD                    | Hospital del Mar  
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| PPD                    | Institut Catala d’Oncologia Hospitalet  
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| PPD                    | Hospital Universitario Virgen del Rocío  
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| PPD                    | Hospital Quirón Barcelona  
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| PPD                    | Complejo Hospitalario Universitario de Santiago (CHUS)  
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| PPD                    | The Royal Free London NHS Foundation Trust - The Royal Free Hospital  
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London NW3 2QG  
UK |
| PPD                    | The Christie NHS Foundation Trust  
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UK |
| PPD                    | University Hospital Coventry and Warwickshire NHS Trust - The Arden Centre  
Clifford Bridge Road  
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UK |
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<td>Taunton and Somerset NHS Foundation Trust – Musgrove Park Hospital Parkfield Drive Taunton TA1 5DA UK</td>
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<td>PPD</td>
<td>Barts Health NHS Trust-St Bartholomew's Hospital West Smithfield London EC1A 7BE UK</td>
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<td>PPD</td>
<td>Institut für Versorgungsforschung in der Onkologie Neversstrasse 5 Koblenz 56068 Germany</td>
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