

A Phase 3, Randomized Trial Evaluating Avutometinib Plus Defactinib Compared With Investigator's Choice of Therapy (ICT) in Patients With Recurrent Low-Grade Serous Ovarian Cancer (LGSOC): GOG-3097/ENGOT-ov81/NCRI/RAMP 301

Rachel N. Grisham¹, Bradley J. Monk², Els Van Nieuwenhuysen³, Kathleen N. Moore⁴, Michel Fabbro⁵, David M. O'Malley⁶, Ana Oaknin⁷, Premal H. Thaker⁸, Amit M. Oza⁹, Nicoletta Colombo¹⁰, Stephanie Lustgarten¹¹, Hagop Youssoufian¹¹, Susana N. Banerjee¹²

¹Memorial Sloan Kettering Cancer Center, Weill Cornell Medical College, New York, NY, USA; ²HonorHealth, University of Arizona, Creighton University, Phoenix, AZ, USA; ³University of Arizona, Creighton University, Phoenix, AZ, USA; ³University, Phoenix, AZ, USA; ³University of Arizona, Creighton University, Phoenix, AZ, USA; ³University of Arizona, Creighton University, Phoenix, AZ, USA; ³University, Phoenix, AZ, USA; ³University, Phoenix, AZ, USA; ⁴University, Phoenix, Phoenix, AZ, USA; ⁴University, Phoenix, Ph Oklahoma Health Sciences Center, Oklahoma City, OK, USA; ⁵Institut du Cancer de Montpellier, France; ⁶The Ohio State University and James Comprehensive Cancer Center, Columbus, OH, USA; ⁷Gynaecologic Cancer Programme, Vall d'Hebron Institute of Oncology (VHIO), Hospital Universitari Vall d'Hebron, Vall d'Hebron Barcelona Hospital Campus, Barcelona, Spain; ⁸Washington University Health Network, Toronto, Ontario, Canada; ¹⁰Department of Medicine and Surgery, University of Milan-Bicocca, Italy, and Gynecologic Oncology Program, European Institute of Oncology IRCCS, Milan, Italy; ¹¹Verastem, Inc., Needham Heights, MA, USA; ¹²The Royal Marsden NHS Foundation Trust and Institute of Cancer Research, National Cancer Research Institute (NCRI), London, UK

BACKGROUND

Unmet Need in Patients With LGSOC

- LGSOC is a rare, histopathologically, molecularly, and clinically distinct cancer requiring long-term, well-tolerated continued treatment and broadly driven by the RAS/MAPK pathway^{1,2}
- It is poorly sensitive to chemotherapy³ and affects younger women (median, 43 to 47 years of age), many of whom endure years of ineffective treatments and poor quality of life²
- Current LGSOC treatment options are limited in efficacy and tolerability—there are no approved therapies specifically indicated for LGSOC⁴

Mechanism of Action (Figure 1)

- **Avutometinib** is a first-in-class, oral, RAF/MEK clamp that potently inhibits MEK kinase activity while also blocking the compensatory reactivation of MEK by upstream RAF (ARAF, BRAF, and CRAF)⁵⁻⁸
- **Defactinib** is a selective inhibitor of FAK, a signaling target that has been shown to mediate resistance to multiple anticancer agents⁹⁻¹¹

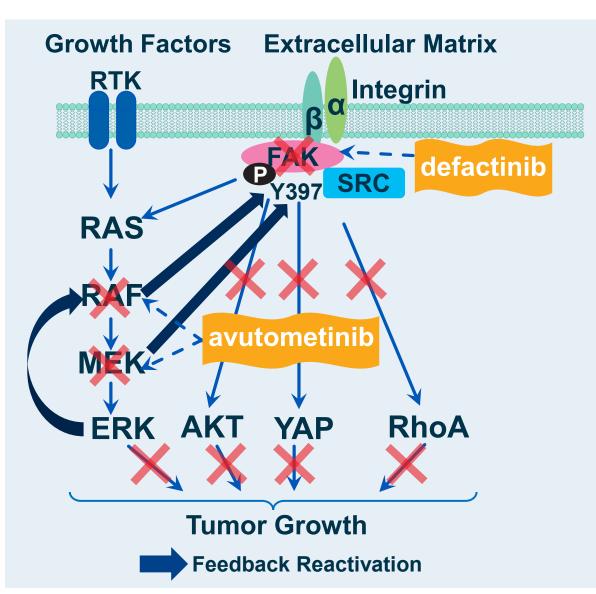


Figure 1. Avutometinib + Defactinib Mechanism of Action.

STUDY RATIONALE

- Avutometinib + defactinib demonstrated an ORR of 42% (n/N=11/26), a mDOR of 26.9 months (95% CI, 8.5-47.3), and a mPFS of 20.0 months (95% CI, 11.1-31.2) in recurrent LGSOC in the FRAME study (NCT03875820; **Figure 2A**)¹²⁻¹⁴
- Results of the FRAME study led to US FDA Breakthrough Therapy Designation and rationale for the phase 2 registrational ENGOT-ov60/GOG-3052/RAMP 201 (NCT04625270) study¹⁵⁻¹⁷
- In Part A of RAMP 201, a confirmed ORR of 45% (n/N=13/29; 95% CI, 26-46) was observed along with tumor reduction in 86% of patients treated with avutometinib + defactinib (Figure 2B)^{15,16,18}
- The combination of avutometinib + defactinib demonstrated exceptionally high responses in heavily pretreated recurrent LGSOC, regardless of KRAS status, number of prior lines of therapy, or best response to last treatment in the recurrent/metastatic setting
- The safety profile was consistent with previously reported safety results for avutometinib ± defactinib; the majority of AEs experienced were grade 1-2, and a limited number of patients experienced dose reductions (17%); 12% of patients discontinued avutometinib or defactinib due to \geq 1 treatment emergent adverse event
- The confirmatory phase 3 GOG-3097/ENGOT-ov81/NCRI/RAMP 301 (RAMP 301) study is further assessing the safety and efficacy of avutometinib in combination with defactinib versus ICT in patients with recurrent LGSOC who have at least progressed on a prior platinum-based therapy

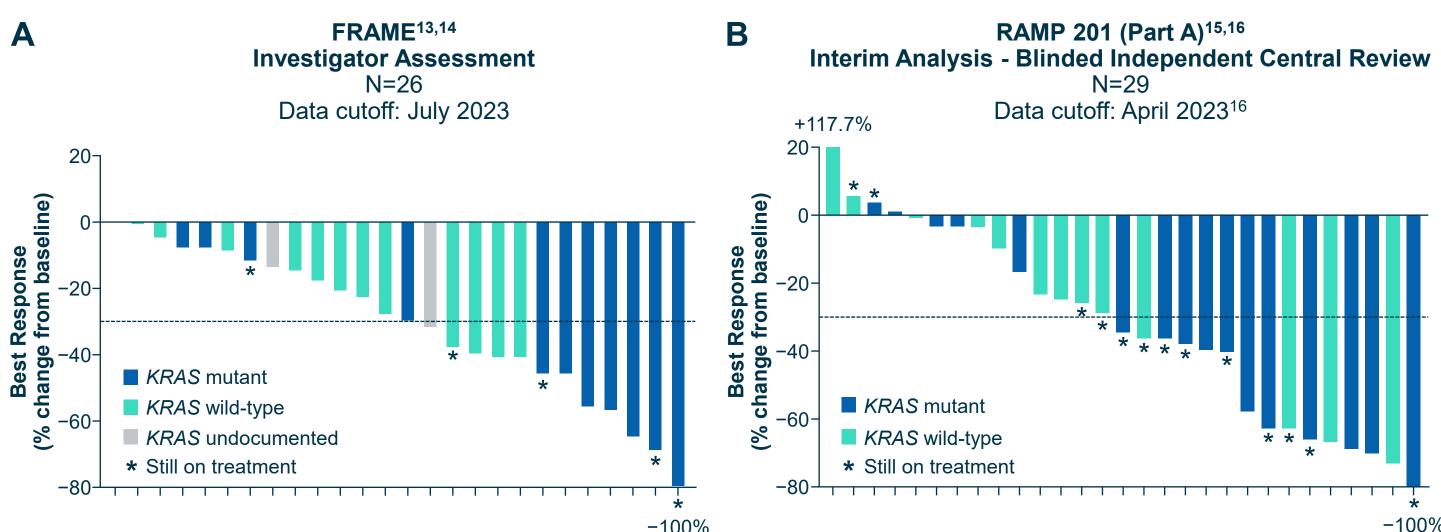


Figure 2. Percent Change in Baseline Tumor Assessment in the (A) FRAME and (B) RAMP 201 (Part A) Studies.

THE POWER OF SHARED PURPOSE: Transforming Gynecologic Cancer Care

Study Objective and Endpoints

- RAMP 301 (NCT06072781) is a phase 3, randomized, international, open-label study designed to compare avutometinib plus defactinib versus ICT in patients with recurrent LGSOC who have at least progressed on a prior platinum-based therapy¹⁹ (Figure 3) • The primary endpoint of the study is PFS according to RECIST v1.1, per BICR
- Secondary endpoints of the study include
- OS
- PFS per RECIST v1.1 per investigator assessment - ORR
- DOR
- Disease control rate (defined as CR/PR or SD at \geq 24 weeks)
- Safety and tolerability
- Pharmacokinetics
- PROs/quality of life: EORTC QLQ-C30 and EORTC QLQ-OV28 questionnaires

RAMP 301 Study Design

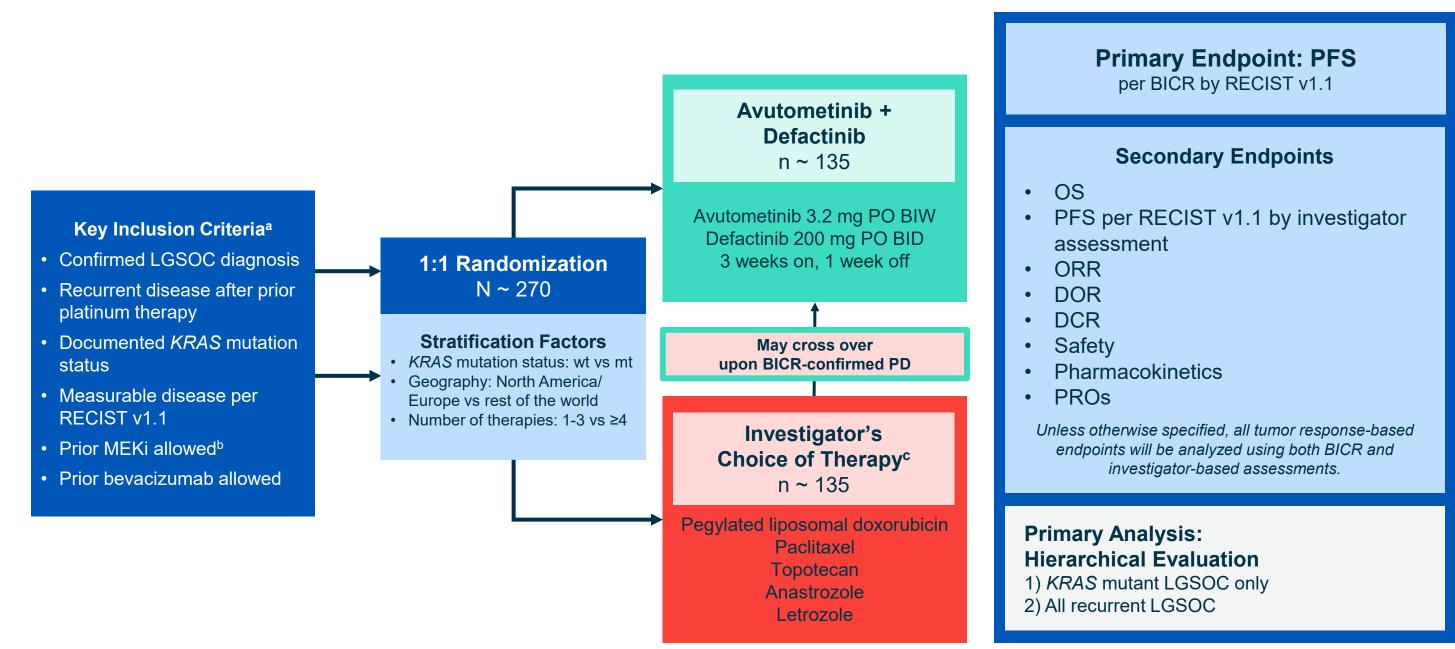


Figure 3. RAMP 301 Study Design. aKey inclusion and exclusion criteria are listed below in Table 1. One prior line of treatment with a MEK and/or RAF inhibitor is permitted only if there was prior clinical benefit (objective response or SD ≥6 months) and not received within 6 months of signing informed consent. ^cPegylated liposomal doxorubicin: 40 mg/m² IV on Day 1 of each 28-day (4-week) cycle; paclitaxel: 80 mg/m² IV on Days 1, 8, and 15 of each 28-day (4-week) cycle; topotecan: 4 mg/m² IV on Days 1, 8, and 15 of each 28-day (4 week) cycle; anastrozole: 1 mg PO once daily of each 28-day (4-week) cycle; letrozole: 2.5 mg PO once daily of each 28-day (4-week) cycle;

Key Exclusion Criteria

• Age ≥18 years

Key Inclusion Criteria

- Histologically proven LGSOC (ovarian, fallopian, peritoneal)
- Documented mutational status of KRAS by an approved diagnostic test (eg, CDx, CE marked) from tumor tissue
- Suitable for at least one of the ICTs (PLD, paclitaxel, topotecan, letrozole, anastrozole)
- Adequate recovery from toxicities related to prior treatment
- Recurrent LGSOC (*KRAS*-mutant and wild-type)
- Prior treatment with ≥1 platinum-based regimen
- ≥1 measurable lesion per RECIST v1.1
- ECOG PS ≤1
- Adequate organ function
- Agreement to use highly effective measures of contraception (for patients with reproductive potential)

- disease

Table 1. Key Inclusion and Exclusion Criteria. A full listing can be found on ClinicalTrials.gov at https://classic.clinicaltrials.gov/ct2/show/NCT06072781.

STUDY DESIGN

Diagnostic Assessments

- LGSOC diagnosis
- Archival tumor tissue (<5 years old) or fresh biopsy tissue must be available and received by central labs for central confirmation of *KRAS* mutational status and LGSOC diagnosis
- Efficacy Assessments
- Post-randomization disease assessments will occur every 8 weeks (±7 days) for the first 18 cycles and then every 12 weeks (±7 days) until disease progression, regardless of any changes to visit or cycle schedules
- Post-randomization chest CT is only required when there is baseline disease or when there is suspected disease or symptoms
- Survival follow-up will be performed every 12 weeks (±14 days) after the 30-day safety follow-up visit for up to 5 years after the last patient is enrolled
- Safety Assessments
- physical examinations, and ECHOs
- **Patient-Reported Outcomes**
- cycles (C9D1, C13D1, etc)
- Enrollment of ~ 270 patients is ongoing
- ovarian cancer research organizations

GOOG FOUNDATION Transforming the standard of care Constant DENGO ENGO European Network of Gynaecological Oncological Trial groups	United States	GOG FOUNDATION [®] Transforming the standard of care [¬]	France (T) ARCAGY GINECO	Denmark
	υк	Advancing Cancer Research Together	Italy	South Korea Synecologic Oncology Group
	Spain	Gerico Gerico Español de Investigación en Cáncer ginecalógico	Canada GOG FOUNDATION [®] Transforming the standard of care [®]	Australia ANZ GOG
	Belgium	BGOG Experience County of ma	Germany	

AGO, Arbeitsgemeinschaft Gynäkologische Onkologie; ANZGOG, Australia New Zealand Gynaecological Oncology Group; BGOG, Belgium and Luxembourg Gynaecological Oncology Group; ENGOT, European Network for Gynaecological Oncological Trial groups; GEICO, Grupo Español de Investigación en Cáncer de Ovario; GINECO, Groupe d'Investigateurs National des Etudes des Cancers Ovariens et du sein; GOG, Gynecologic Oncology Group; KGOG, Korean Gynecologic Oncology Group; MaNGO, Mario Negri Gynecologic Oncology; MITO, Multicentre Italian Trials in Ovarian Cancer and Gynecologic Malignancies; NCRI, National Cancer Research Institute; NSGO, Nordic Society of Gynaecological Oncology.

Matsuo K, et al. J Gynecol Oncol. 2018;29(1):e15. Slomovitz B, et al. Gynecol Oncol. 2020;156(3):715-725. Scott SA, et al. Gynecol Oncol. 2020;157(1):36-45. Grisham RN. et al. Int J Gynecol Cancer. 2023;33(9):1331-1344 Martinez-Garcia C. et al. *Clin Cancer Res*. 2012:18(17):4806-4819. Ishii N, et al. Cancer Res. 2013;73(13):4050-4060. Lito P, et al. Cancer Cell. 2014;25(5):697-710. Gonzalez-Del Pino GL, et al. Proc Natl Acad Sci U S A. 2021;118(36):e2107207118 Dawson JC, et al. Nat Rev Cancer. 2021;21(5):313-324. Shinde R, et al. Cancer Res. 2020;80(suppl 16):CT143. 1. Kang Y, et al. J Natl Cancer Inst. 2013;105(19):1485-1495. Banerjee S, et al. Ann Oncol. 2021;32(suppl 5):S725-S772 3. Udai B. Proteomic profiling of KRAS signaling; Context, CAFs and Combinations. Presented at: Targeting RAS 2023 Symposium. September 13-15, 2023; Salamanca, Spain.

AEs, adverse events; AKT, protein kinase B; BICR, blinded independent central review; BID, twice daily; BIW, twice a week; CDx, companion diagnostic; CE, Conformité Européenne; CR, complete response; DCR, disease control rate; DOR, duration of response; ECHOs, echocardiograms; ECOG PS, Eastern Cooperative Oncology Group performance status; EORTC, European Organisation for Research and Treatment of Cancer; ERK, extracellular signal-regulated kinase; FAK, focal adhesion kinase; FDA, Food and Drug Administration; IV, intravenous; MAPK, mitogen-activated protein kinase; mDOR, median duration of response; mPFS, median progression-free survival; MEK, MAPK kinase; MEKi, MEK inhibitor; mt, mutant; ORR, objective response rate; OS, overall survival; P, phosphate; PD, progressive disease; PFS, progression-free survival; PLD, pegylated liposomal doxorubicin; PO, oral administration; QLQ, Quality of Life Group Questionnaire; PR, partial response; RAF, rapidly accelerated fibrosarcoma; RAS, rat sarcoma virus; RECIST, response evaluation criteria in solid tumors; RhoA, Ras homolog family member A; RTK, receptor tyrosine kinase; SD, stable disease; wt, wild type; **YAP**, yes-associated protein.



- · Co-existing, high-grade ovarian cancer or another histology – LGSOC in conjunction with serous borderline tumor is permitted
- Prior treatment with avutometinib, defactinib, or other FAK inhibitors is not allowed
- One prior line of treatment with a MEK and/or RAF inhibitor is permitted only if there was prior clinical benefit (objective response or SD \geq 6 months) and not received
- within 6 months of signing informed consent
- Suitable for debulking surgery according to their physician • Systemic anticancer therapy within 4 weeks of the first dose of study intervention
- Major surgery within 4 weeks
- Symptomatic brain metastases or spinal cord compression Active skin disorder that has required systemic therapy within 1 year of signing informed consent
- History of medically significant rhabdomyolysis
- Symptomatic bowel obstruction within 3 months
- Concurrent ocular disorders
- Concurrent heart disease or severe obstructive pulmonary



Presented at the O Annual Meeting on Women's Cancer⁻ March 16-18, 2024, San Diego, CA. **POSTER 2120**

Patient Assessments

- Local KRAS mutational status available from an approved diagnostic (eg, CDx, CE marked)

Safety assessments are ongoing after informed consent which may include AEs/SAEs, lab tests,

- EORTC QLQ-C30 and EORTC QLQ-OV28, provided in local language, will be administered after randomization up to C1D1 before any visit-related assessments, at C3D1, C5D1, then every 4

TRIAL STATUS

This international study is in collaboration with the GOG Foundation and ENGOT and the following

REFERENCES



14. Louis D. Introducing Rational Combinations of RAF/MEK Clamp Avutometinib: Breakthrough Designation & Beyond. Presented at: 5th RAS-Targeted Drug Development Summit. September 26-28, 2023; Boston, MA. 5. Banerjee SN, et al. J Clin Oncol. 2023;41(16 suppl):Abstract 5515. 6. Banerjee SN, et al. Presented at: ASCO 2023. June 2-6, 2023; Chicago, IL. Poster 210. 7. Press Release. Verastem Oncology Receives Breakthrough Therapy Designation for VS-6766 with

Defactinib in Recurrent Low-Grade Serous Ovarian Cancer. Verastem Oncology. May 24, 2021. Accessed September 28, 2023. https://investor.verastem.com/node/12421/pd Grisham RN, et al. Presented at: IGCS 2023. November 5-7, 2023. Seoul, South Korea. Plenary 01 19. A Study of Avutometinib (VS-6766) + Defactinib (VS-6063) in Recurrent Low-Grade Serous Ovarian Cancer (RAMP 301). ClinicalTrials.gov identifier: NCT06072781. Updated December 26, 2023. Accessed

ABBREVIATIONS

ACKNOWLEDGMENTS

We thank the patients and their families, the trial teams at the participating centers, ENGOT, and the GOG Foundation for supporting this study. This study is sponsored by Verastem Oncology. Medical writing assistance was provided by Amanda C. Vreeland, PhD, CMPP, from ProEd Communications, and funded by Verastem Oncology.

January 30, 2024. https://classic.clinicaltrials.gov/ct2/show/NCT06072781