



## XVIII ASSEMBLEA MANGO

# Ricerca Clinica e Traslazionale in Ginecologia Oncologica

MILANO, 2-3 LUGLIO 2021

Con il Patrocinio di:



# Studi sul carcinoma ovarico

## Collaborazioni

### ENGOT e GCIG

Giuseppe Funari

Roldano Fossati

Istituto di Ricerche Farmacologiche Mario Negri, Milano

# ENGOT e GCIG in breve



1. **ENGOT e GCIG sono reti intergruppo di collaborazione internazionale**
2. **GCIG si fonda formalmente nel 1997 e ENGOT (ESGO inside) nel 2007**
3. **ENGOT ha caratura Europea, GCIG coinvolge anche gruppi americani, asiatici e australiani**
4. **GCIG si finanzia con quote annuali di iscrizione e donazioni industria, ENGOT con quote per studio e donazioni industria**
5. **Entrambi prevedono incontri semestrali e propongono iniziative per la formazione dei futuri ricercatori clinici**



*Ricerca Clinica e Traslazionale  
in Ginecologia Oncologica*

*XVIII ASSEMBLEA MANGO  
MILANO, 2-3 LUGLIO 2021*

1. **Gli studi vengono proposti in sede ENGOT e, solo in alcuni casi, discussi collegialmente**
2. **Il gruppo leader chiede quali gruppi collaborativi siano interessati e stima quanti centri possano aggregarsi**
3. **Le proposte vengono discusse nel CTS di MaNGO**
4. **I centri afferenti al CTS spesso saturano il numero dei centri partecipanti messi a disposizione dal gruppo leader**
5. **Le CRO incaricate, in caso di studi ENGOT modello C si fanno carico di tutti gli aspetti operativi**
6. **In caso di studi ENGOT A e B, MaNGO tramite il Mario Negri si fa carico della gestione del trial in Italia**

## Ovaio 1° linea

- ENGOT ov33 - TRUST
- ENGOT ov46 - DUO-O
- ENGOT ov43
- ENGOT ov63 NIRVANA (new)
- ENGOT ov57 AGO-OVAR 28 (new)

## Ovaio recidiva platino sensibile

- ENGOT ov38 - OReO
- ENGOT ov41 - ANITA

## Ovaio recidiva platino resistente

- ENGOT ov51 - NiTChE
- ENGOT ov50
- ENGOT ov55 - MIRASOL
- EPIK-O
- ENGOT-ov66 (ARAVIVE)

## Carcinoma ovarico di basso grado

- ENGOT-ov60

- ENGOT ov33 - TRUST
- ENGOT ov46 - DUO-O
- ENGOT ov43
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- ENGOT ov57 AGO-OVAR 28 (new)

## •OBIETTIVI:

- Efficacia della strategia neoadiuvante in centri di eccellenza chirurgica > 800 pazienti
- IO+PARP oppure solo IO in aggiunta alla chemioterapia+bev > 1100 +1100=2200 pazienti wtBRCA
- PARP + bev oppure solo PARP > 390 + 970=1360 pazienti

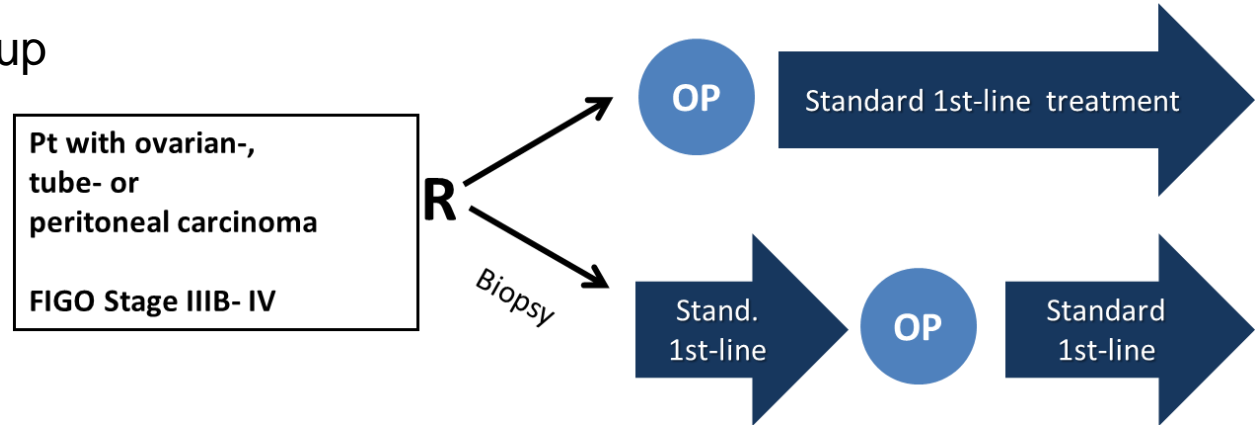




# ENGOT-ov33 – TRUST



ENGOT model A  
Sponsor AGO Study Group



Final No. of Patients.:

n = 726 planned / 797 randomized  
(FPI: 22-Aug-2016; LPI 07-Jun-2019)

Translational Research:

- **FFPE tumour block from either primary debulking surgery or diagnostic laparoscopy / biopsy and interval debulking surgery (sample collection ongoing)**
- optional blood plasma samples for ctDNA analysis (sample collection completed)

**Primary OS analysis:**

**after 380 events have been observed in eligible patients (modified ITT analysis ~ 2024)**

Recruitment status 07.06.2019

797/772 patients randomized (= 103.2 %)

Country	Sites (20 SIVs / 20 active)	Group	PI	# pts screened	# pts randomized	# pts eligible*
	Berlin Charité	AGO	<u>Sehouli, J.</u> , Muallem M., Chekerov R.	153	122	118
	Essen KEM	AGO	<u>Heitz, F.</u> , Harter P., du Bois A.	358	118	118
	Düsseldorf, KWD	AGO	Lampe, B.	139	103	101
	Tübingen UFK	AGO	<u>Krämer, B.</u> , Brucker S., Kommos S., Taran F-A.	252	104	97
	München LMU	AGO	<u>Burges, A.</u> , Trillsch F.; Mahner S.	163	53	48
	London, Imperial Hospital	single site / AGO	Fotopoulou, C.	92	45	45
	Milan, IEO	MaNGO	Aletti, G.	46†	45	45
	Hamburg UKE	AGO	Schmalfeldt, B.	94	38	36
	Dresden UFK	AGO	Wimberger, P.	57	32	30
	München r.d.l.	AGO	Bronger, H.	36	23	23
	Stockholm, Karolinska	NSGO	Falconer, H.	44	18	18
	Paris, HEGP	GINECO	Lecuru, F.	42	18	17
	Milan, INT	single site / MaNGO	Raspagliesi, F.	92	15	15
	Copenhagen, Rigshospital	NSGO	Mosgaard, B.J.	73	15	15
	Naples, INT	single site / MaNGO	Greggi, S.	48	13	12
	Bordeaux, Institut Bergonié	GINECO	Guyon, F.	11	11	11
	Lund, Skane University	NSGO	Kannisto, P.	33	9	9
<b>TOTAL</b>				<b>1792</b>	<b>797</b>	<b>773</b>



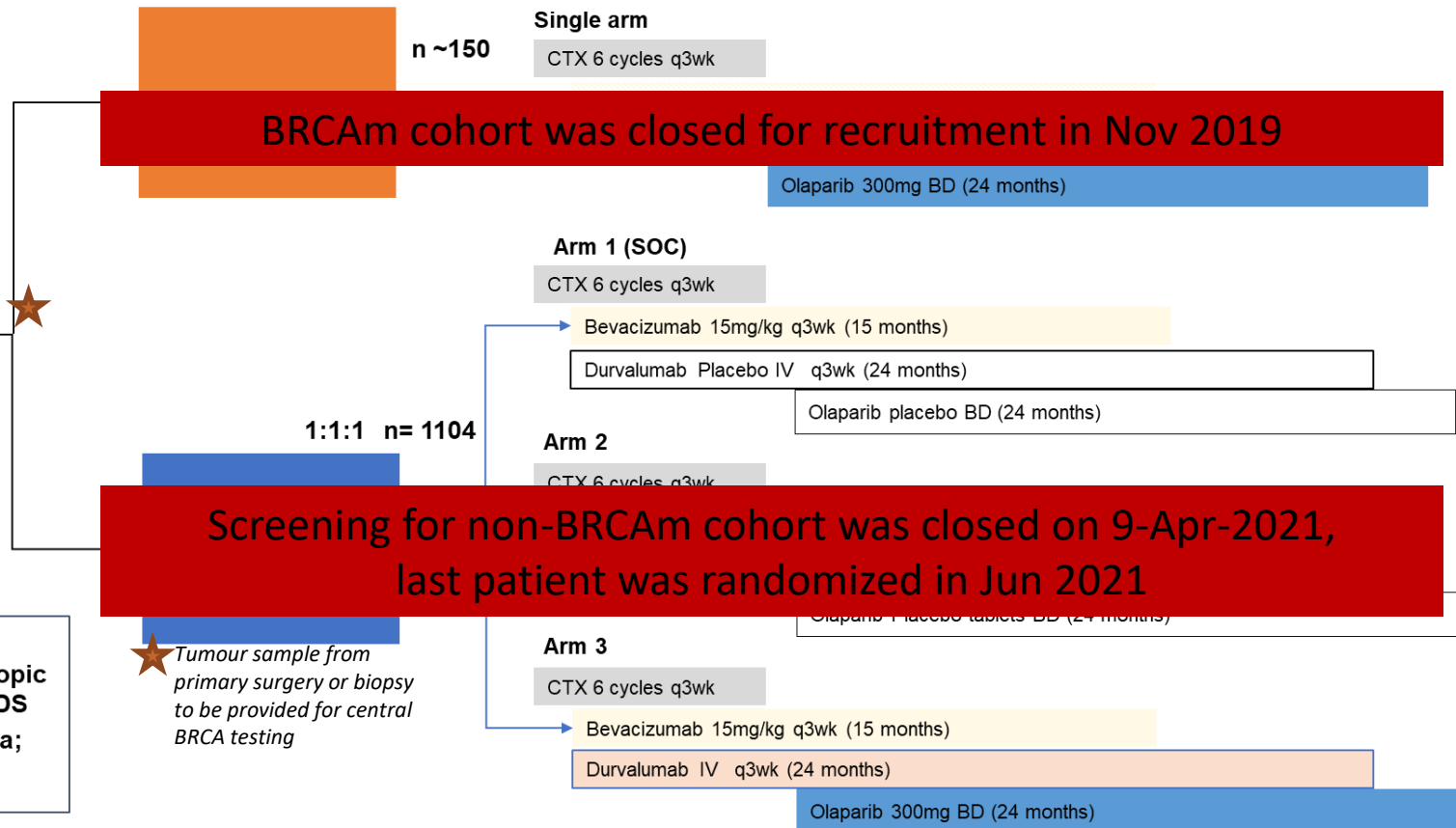
# ENGOT-ov46 - DUO-O

Olaparib and Durvalumab in addition to SoC in newly diagnosed, advanced, ovarian cancer patients

## ENGOT model C Sponsor AstraZeneca

- Newly diagnosed advanced high grade epithelial OvC stage III-IV
- Primary surgery or interval debulking surgery (IDS)
- N~1254

**Stratification:**  
 1) No residual macroscopic disease vs. residual or IDS  
 2) Region: North America; EU; RoW





# ENGOT-ov46 - DUO-O

Olaparib and Durvalumab in addition to SoC in newly diagnosed, advanced, ovarian cancer patients



- **Primary Objective** To determine the efficacy of durvalumab and olaparib assessed by PFS in the first line treatment of non-tBRCAm patients with newly diagnosed advanced ovarian cancer
- **Final No. of recruited patients:** **1284 patients (planned: 1259)**
- **Status:** Last Patient randomized on 17-Jun-2021, Treatment & Follow Up ongoing
- **Participating groups:** AGO-Au, BGOG, GEICO, GINECO, GOG-F, JGOG, KGOG, MaNGO, MITO, NSGO, PGOG, TRSGO
- **Other important information:** New protocol version 5.0 released (Switch to Bevacizumab biosimilars allowed; Inclusion of a China cohort to allow inclusion of 120 non-tBRCA patients into the China cohort after global recruitment is closed, addition of exploratory analysis comparing Arm 2 and 3 to address regulatory requirements)

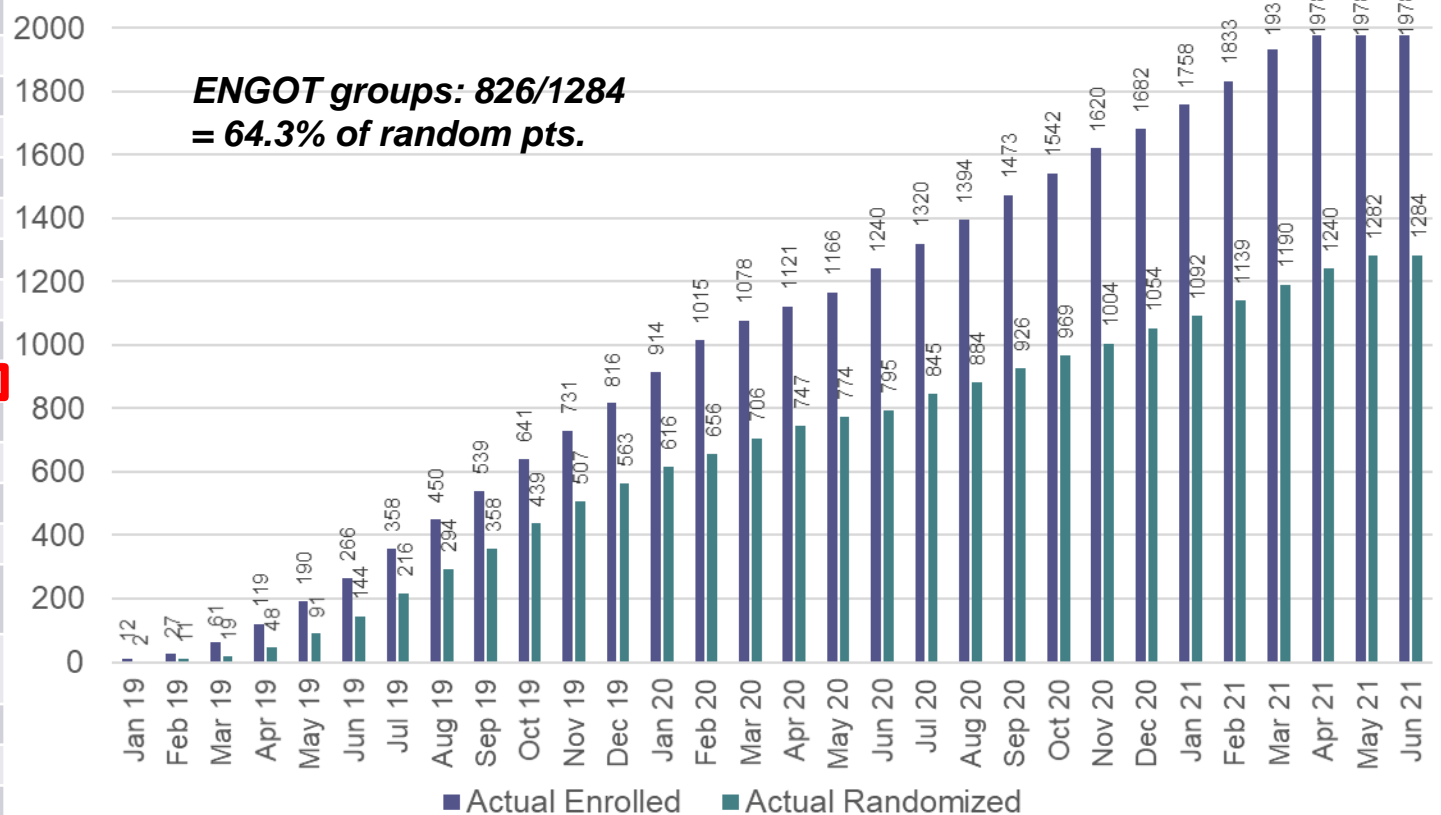
**Primary PFS analysis of DUO-O is anticipated in Q2/2023**

# ENGOT-ov46 - DUO-O

## Final Enrolment / Randomization



Group	Nts enrolled	pts random.
AGO	521	321
GOG-F	188	124
JGOG	136	101
KGOG	125	93
GEICO	124	83
TRSGO	130	80
MITO	107	73
GINECO	124	72
NSGO	87	58
<b>MaNGO</b>	<b>58</b>	<b>42</b>
PGOG	60	40
AGO-Au	46	33
PMHC	43	27
BGOG	32	24
Hungary via AZ	72	47
Bulgaria via AZ	50	28
Brazil via AZ	33	17
Peru via AZ	32	15
Romania via AZ	8	5
China via AZ	2	1



## Status MaNGO sites as of 28-June-2021

- Participation with 6 sites planned, 4 of them have enrolled / randomized patients

PI Name	Centre Number	Centre Status	Centre Activation Date	Subjects Enrolled	Subjects Screen Failed	Subjects Randomised
Colombo,Nicoletta	4101	Active	2019-Jul-11	31	7	24
Tognon,Germana	4105	Active	2019-Aug-27	12	4	8
Ardizzoia,Antonio	4106	Active	2020-Feb-27	10	3	7
Ferrero,Annamaria	4104	Active	2020-Sep-17	5	2	3
Katsaros,Dionyssios	4103	Not Activated	-	0	0	0
Bologna,Alessandra	4102	Not Activated	-	0	0	0
<b>TOTAL</b>				<b>58</b>	<b>16</b>	<b>42</b>

## STUDY DESIGN

Trial setting: **Ovary/newly diagnosed**

Sponsor(s): **MSD**

Planned No. of patients: **1086**

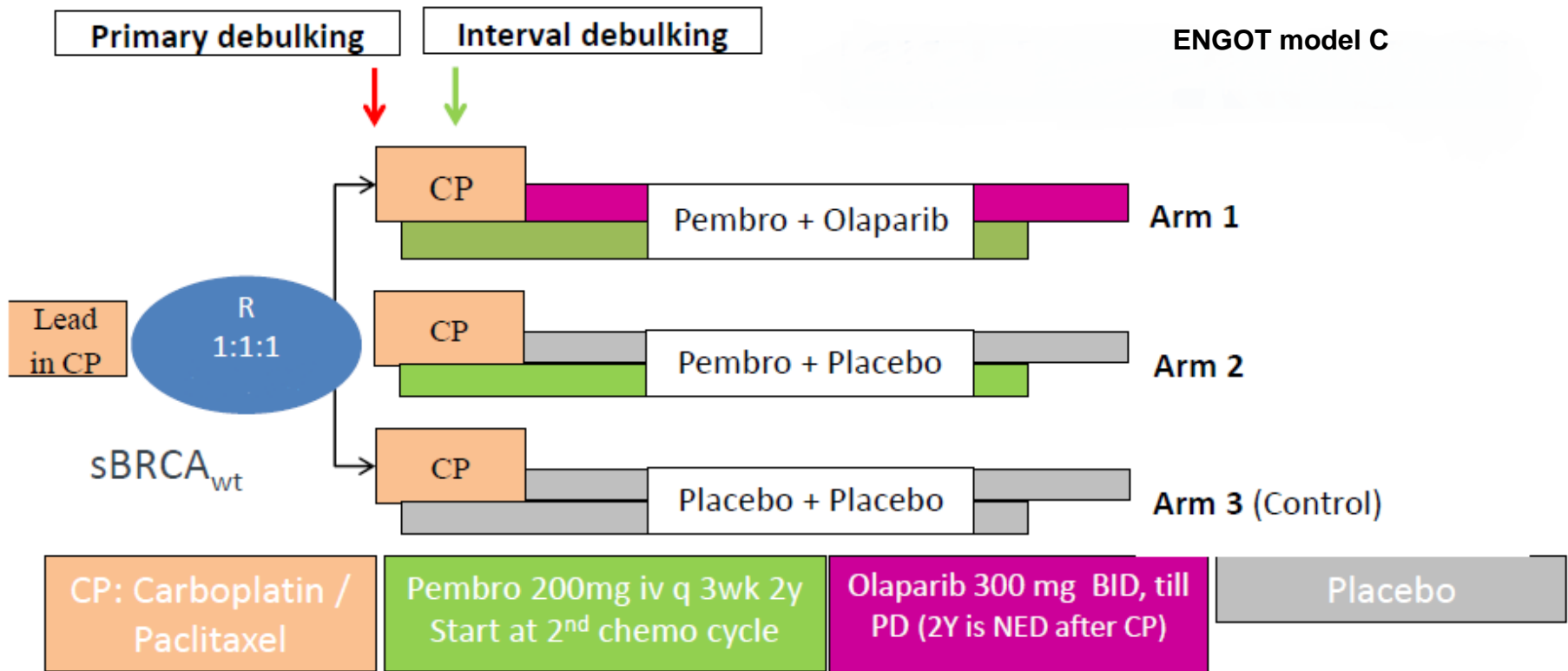
FPI: **expected Q4 2018**

Co-primary Endpoints: **PFS (by PI) and OS**

First biopsy for **somatic BRCA testing (taken at PDS or laparoscopy or core,...)**

Randomization **before 2<sup>nd</sup> chemo cycle** if not somatic mutated in BRCA

**Stratification:** 1. Bev use    2. PDS R0; PDS R>0; NACT->IDS  
3. PD-L1 status (CPS < or >= 10)



**Bevacizumab** allowed; to be specified in advance; randomization to be stratified by use of bev or not

# ENGOT OV43 : Enrollment Closed, GLOBAL

Country	Total Screened	In Screening/In Lead-in	Screen Fail/Lead-in Fail	Total Randomized	Discontinued
Australia	24	2	12	10	2
Belgium	189	5	75	109	49
Brazil	74	0	49	25	4
Canada	79	3	36	40	17
Chile	113	1	65	47	14
Colombia	61	0	28	33	8
Czech Republic	110	2	59	49	18
France	74	4	35	35	9
Germany	67	7	20	40	4
Hungary	57	0	29	28	9
Israel	116	3	55	58	35
Italy	218	8	96	114	37
Japan	145	4	55	86	42
Korea, Republic of	123	0	54	69	24
Poland	115	5	51	59	21
Russia	150	2	73	75	28
South Africa	60	2	32	26	4
Spain	148	9	62	77	32
Taiwan	90	2	29	59	22
Turkey	183	5	90	88	26
Ukraine	107	5	39	63	27
United States	243	22	97	124	17
<b>Total</b>	<b>2,546</b>	<b>91</b>	<b>1,141</b>	<b>1,314</b>	<b>449</b>





**NIRaparib with or without  
beVacizumab in mAintenance  
after complete cytoreductionN in  
patients with  
ovArian cancer**

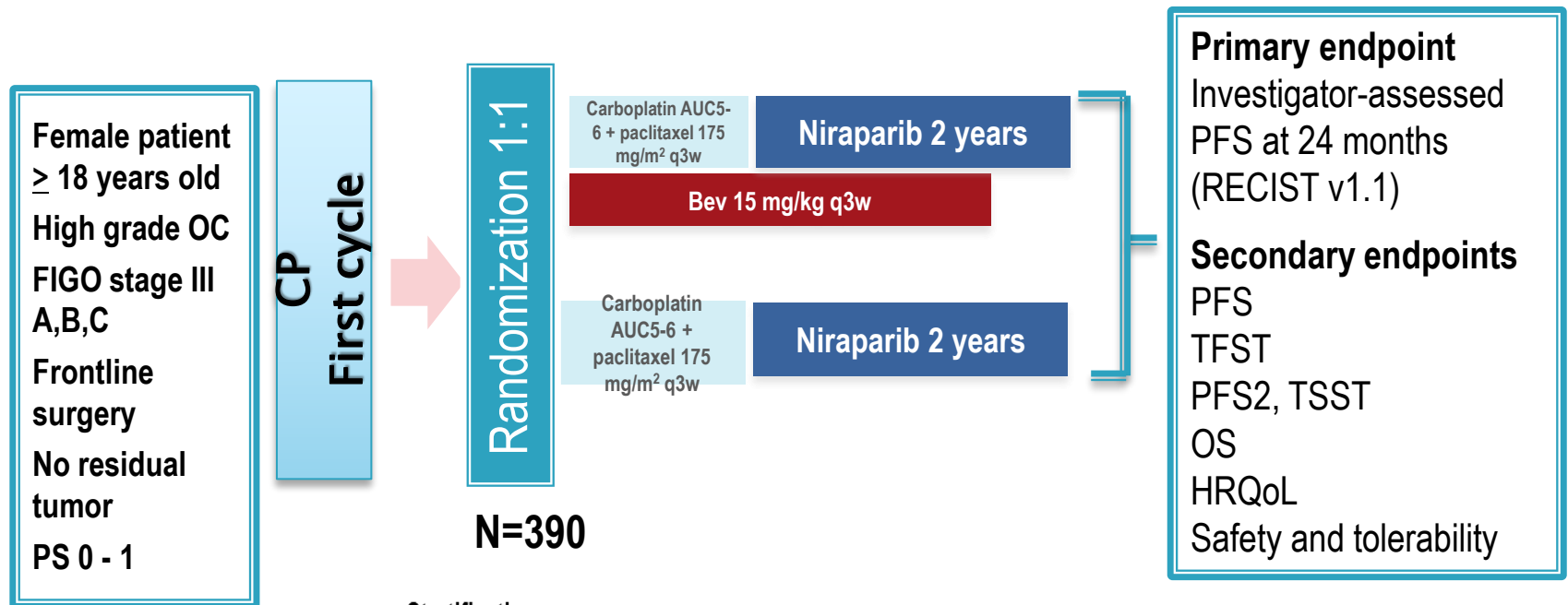
NIRVANA-1-ENGOTov63



Study model A

# THE NIRVANA STUDY

Newly diagnosed FIGO stage III high-grade serous/endometrioid ovarian, fallopian tube or primary peritoneal cancer



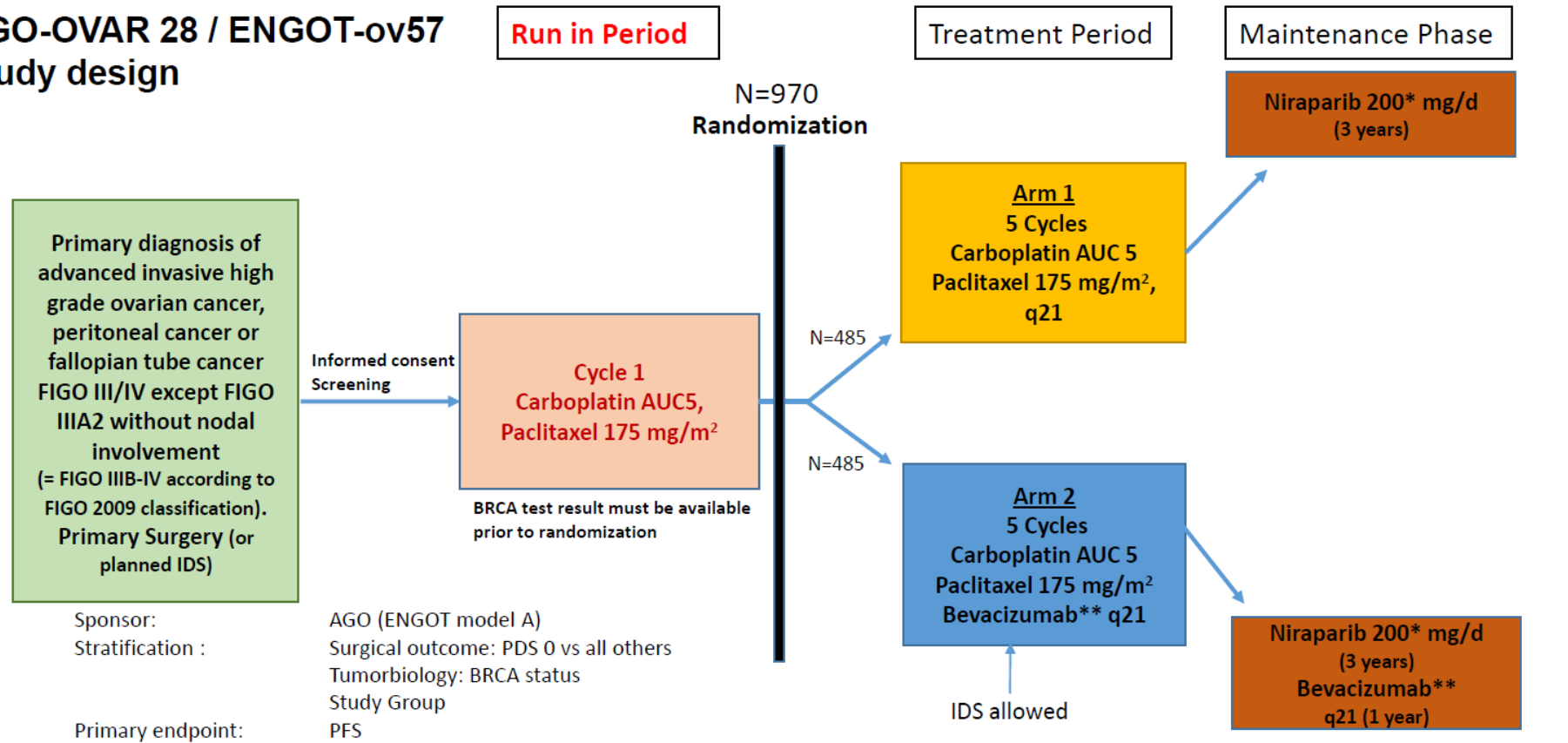
Bev + Niraparib will be provided

Not yet active  
6 MaNGO sites interested

## Stratification

- Tumour *BRC*Am status (local assessment)
- Stage IIIA vs IIIB/C

# AGO-OVAR 28 / ENGOT-ov57 Study design



**Not yet active**  
**9 MaNGO sites interested**

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- EPIK-O
- ENGOT-ov66 (ARAVIVE)

## Carcinoma ovarico di basso grado

- ENGOT-ov60

- ENGOT ov38 – OReO
- ENGOT ov41 - ANITA



## •OBIETTIVI:

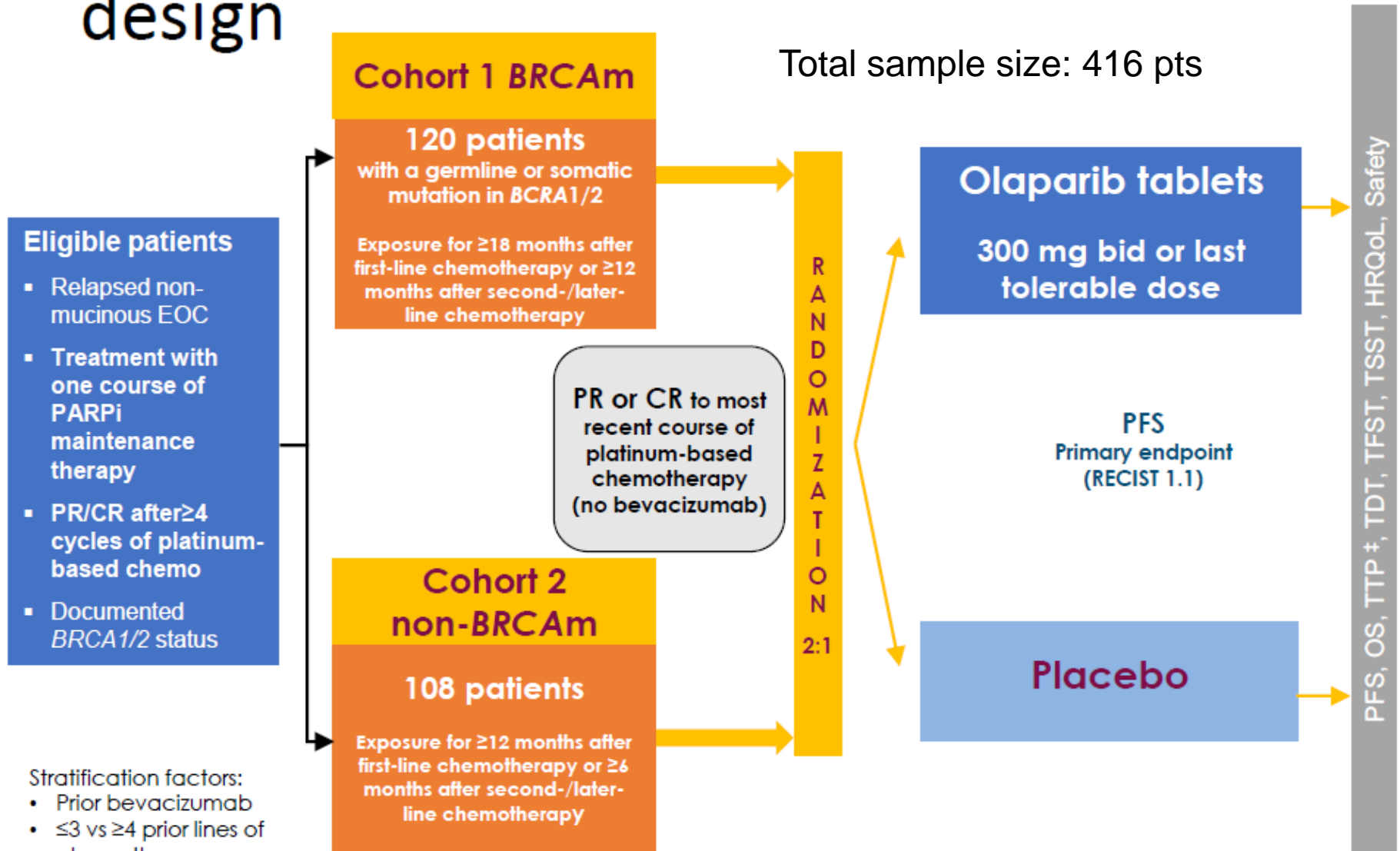
•Utilità di mantenere PARPi oltre una progressione occorsa durante PARPi – 230 pazienti

•Efficacia di IO in aggiunta a Chemio+PARPi - 400 pazienti



# OReO design

## ENGOT Ov38/OReO



- Stratification factors:
- Prior bevacizumab
  - $\leq 3$  vs  $\geq 4$  prior lines of chemotherapy

ENGOT Model C; Lead Group GINECO

# OReO status May 2021

Cohort	Subjects Screened	Subjects in Screening	Subjects Screen Failed	Subjects Randomised	Subjects On Treatment	Subject Discontinued from the study	Progressions	Deaths
BRCA+ve	149	0	37	112	5	107	102	61
BRCA-ve	149	0	41	108	19	89	81	24
	<b>298</b>	<b>0</b>	<b>78</b>	<b>220</b>	<b>24</b>	<b>193</b>	<b>183</b>	<b>85</b>

Cohort	First patient Screened	First Patient randomised	Last patient screened	Last patient randomised	Recruitment period in days (First patient screened to last patient randomised)	Recruitment period in months (FPS to LPR)	Recruitment period in years (FPS to LPR)
BRCA+ve	12-Sep-17	3-Oct-17	6-Apr-20	15-Apr-20	946	31.1	2.6
BRCA-ve	8-Jun-17	28-Jun-17	15-Jan-21	10-Feb-21	1343	44.2	3.7

<b>Data Cut Off</b>	Mon, 15-Feb-2021
<b>Database Lock</b>	<b>Tue, 12-May-2021</b>
<b>High Level Delivery to AZ/GINECO</b>	Tue, 18-May-21
<b>Final TFLs</b>	Wed, 07-Jul-2021
<b>Result Interpretation Meeting</b>	Mon, 19 – Jul -2021
<b>AZ Approve and sign off CSR</b>	Tue, 14 – Sep - 2021

# OReO Recruitment status per ENGOT groups (30 Apr 21)

ENGOT/GCIG	Country	Sites Initiated	Closed Sites	Sites Active (1 patient screened at least)	Subjects Screened	Subjects in Screening	Subjects Screen Failed	Subjects Randomized	Patients in treatment	Subjects Withdrawn	# BRCA Positive Subjects Randomized	# BRCA Negative Subjects Randomized
BGOG	Belgium	3	1	2	7	0	1	6	2	4	3	3
PMC	Canada	3	2	2	5	0	3	2	0	2	0	2
NSGO	Denmark	3	0	3	5	0	0	5	0	5	3	2
	Norway	1	0	1	5	0	0	5	0	5	0	5
GINECO	France	20	1	19	75	0	17	58	3	55	33	25
AGO	Germany	20	11	12	45	0	19	26	3	23	9	17
ISGO	Israel	7	4	5	8	0	4	4	0	4	2	2
<b>MANGO</b>	<b>Italy</b>	<b>7</b>	<b>2</b>	<b>4</b>	<b>14</b>	<b>0</b>	<b>4</b>	<b>10</b>	<b>1</b>	<b>9</b>	<b>8</b>	<b>2</b>
MITO	Italy	11	3	8	47	0	7	40	8	32	21	19
PGOG	Poland	6	1	5	12	0	2	10	0	10	9	1
GEICO	Spain	13	1	13	62	0	16	46	5	41	23	23
NCRI	UK	8	1	7	13	0	5	8	1	7	1	7
	<b>Totals</b>	<b>102</b>	<b>27</b>	<b>81</b>	<b>298</b>	<b>0</b>	<b>78</b>	<b>220</b>	<b>23</b>	<b>197</b>	<b>112</b>	<b>108</b>
								BRCA+	<b>5</b>	<b>107</b>	Missing BRCA-	<b>0</b>
								BRCA-	<b>18</b>	<b>90</b>		

# ITALY - MaNGO

## Site Recruitment status:

Country	PI Name	Centre Number	Centre Status	Subjects Enrolled	Subjects in screening	Subjects Screen Failed	Subjects Randomised	Subjects Withdrawn
Italy	Colombo,Nicoletta	4102	Active	8	0	3	5	5
Italy	Zola,Paolo	4120	Active	2	0	0	2	2
Italy	Tognon,Germana	4121	Active	2	0	1	1	0
Italy	Bologna,Alessandra	4122	Active	2	0	0	2	2
Italy	Conte,Pierfranco	4103	Activated	0	0	0	0	0
Italy	Ferrero,Annamaria	4124	Activated	0	0	0	0	0
Italy	Gadducci,Angiolo	4131	Activated	0	0	0	0	0

# ENGOT-Ov41 / GEICO 69-O / ANITA

(Atezolizumab and Niraparib Treatment Association)



Grupo Español de  
Investigación en  
Cáncer de Ovario

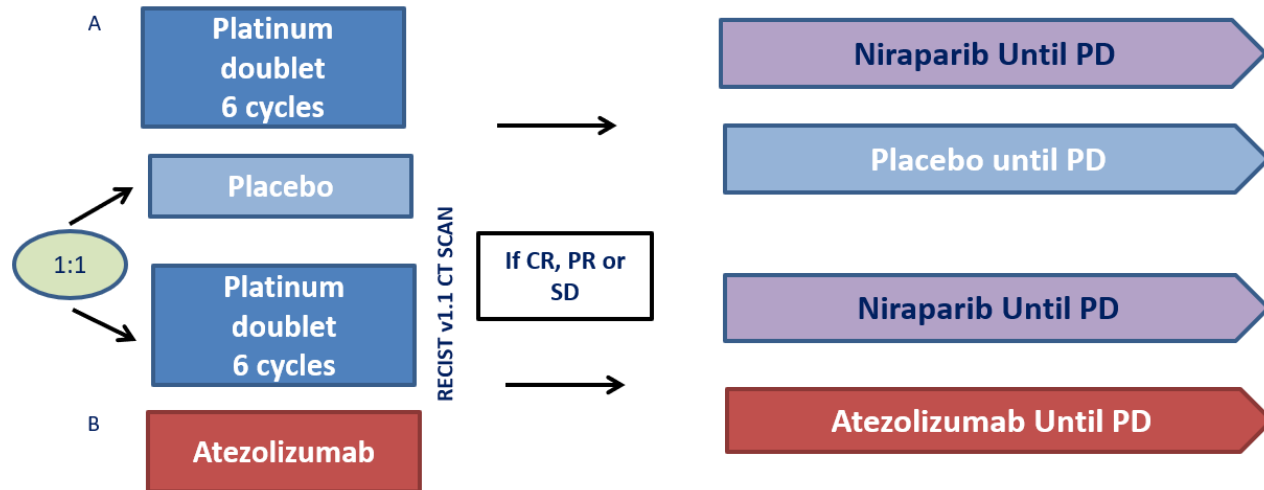


N= 414 patients

- Recurrent high- grade serous or endometrioid, or undifferentiated
- TFIp >6 months
- ≤ 2 prior lines
- Measurable disease
- ECOG ≤ 1

IP: A. González

RANDOMIZATION



### Stratification factors:

- Platinum based regimen selected
- PFI (6-12 months vs > 12 months)
- BRCA mutation status (mutated vs. non-mutated)
- **PD-L1 positive/negative-unknown**

### Primary Endpoint:

- PFS by RECIST v.1.1

### Secondary endpoints:

- Safety and tolerability
- TFST, TSST, PFS2, OS
- ORR, DOR
- QoL/PRO

# ENGOT-Ov41 / GEICO 69-O / ANITA

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Grupo Español de  
Investigación en  
Cáncer de Ovario

**ENGOT**  
European Network of  
Gynaecological Oncological Trial groups



The Israeli Society of  
Gynecologic Oncology  
התורה הישראלית  
לינקולוגיה  
אונקולוגית

Patients Randomized: 335/414 patients  
Patients in Screening: 13 patients

Group	Patients in screening	Randomized patients
GEICO	3	197
GINECO	7	59
MaNGO	2	28
BGOG	1	25
AGO	0	23
ISGO	0	3
<b>Total</b>	<b>13</b>	<b>335</b>



# ENGOT-Ov41 / GEICO 69-O / ANITA

(Atezolizumab and Niraparib Treatment Association)



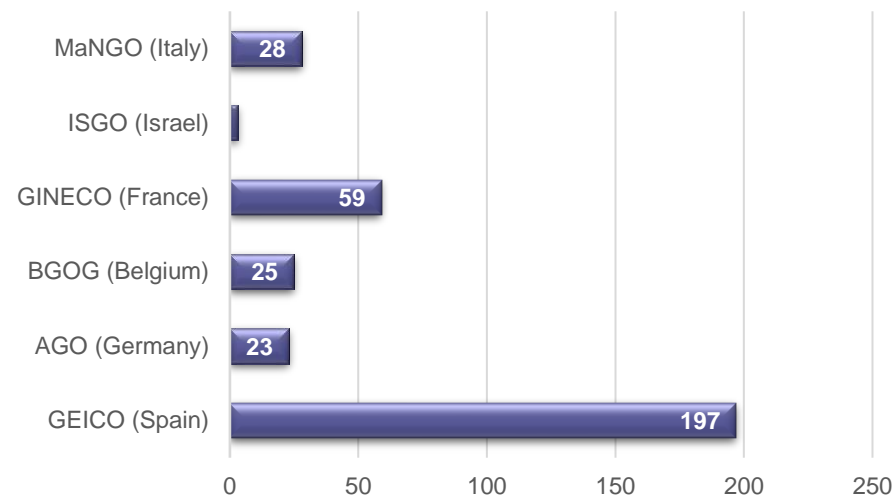
Grupo Español de  
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## ANITA Recruitment Status



## ANITA Enrolled Actual



# ENGOT-Ov41 / GEICO 69-O / ANITA

(Atezolizumab and Niraparib Treatment Association)



Site	Principal Investigator	Total Screened	Screening Failure	In Screening Actual	Enrolled Actual
<b>IEO Milano</b>	<b>Colombo</b>	<b>21</b>	<b>3</b>	<b>1</b>	<b>17</b>
<b>Spedali Civili Brescia</b>	<b>Tognon</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Ospedale Mauriziano Torino</b>	<b>Ferrero</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>3</b>
<b>IRCCS Arcispedale Reggio Emilia</b>	<b>Bologna</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>
<b>IOV-IRCCS Padova</b>	<b>Tasca</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>ASST-Lecco</b>	<b>Ardizzoia</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Ospedale Sant'Anna Torino</b>	<b>Zola</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>TOTAL</b>		<b>35</b>	<b>5</b>	<b>2</b>	<b>28</b>

**Actual commitment 40 patients**

# ENGOT-Ov41 / GEICO 69-O / ANITA

(Atezolizumab and Niraparib Treatment Association)



Grupo Español de  
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ENGOT  
European Network of  
Gynaecological Oncological Trial groups



## Protocol Amendment 2.0 Submitted on 30 Jun 2021

- IB Niraparib Version 11.0
- Atezolizumab DIL: Severe Cutaneous Adverse Reactions (SCARs)
- Atezolizumab Version 17
- Recruitment Extension: August 2021
- **Allow Archival biopsy for patient randomization** if the novo is not technically possible or failed to produce enough representative tumor tissue, after GEICO approval.

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- ENGOT ov51 - NItCHE
- ENGOT ov50
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- EPIK-O
- ENGOT-ov66 (ARAVIVE)



## OBIETTIVI:

- Efficacia di **IO+PARPi** verso chemio - 420 pazienti
- Efficacia di TTFIELDS in aggiunta a chemio - 540 pazienti
- Efficacia di un **citotossico veicolato da un anticorpo specifico per il recettore alfa dei folati** (FRa) in pazienti con tumore che esprime FRa verso chemio - 430 pazienti
- Efficacia di inibitore della chinasi **PI3K + PARPi** verso chemio - 322 pazienti wtBRCA
- Efficacia di inibitore della via **GAS6/AXL** in aggiunta a chemio – 300 pazienti



NItCHE Clinical Trial  
ENGOT OV51 / MITO 33

**ENGOT**  
European Network of  
Gynaecological Oncological Trial groups

Multicentre  
Italian  
Trials  
in Ovarian  
cancer  
**MITO**



## ENGOT Ov51-MITO 33: NItCHE trial

Randomized phase III trial on **N**iraparib-TSR 042 (dostarlimab) vs physician's choice **C**HEmotherapy in recurrent, platinum resistant ovarian, fallopian tube or primary peritoneal cancer: NItCHE trial (MITO 33)

**ENGOT model:** B

**Sponsor:** Fondazione Policlinico Universitario A. Gemelli IRCCS of Rome (FPG)

**Status:** recruiting

**Planned No. of patients:** 427

**Trial setting:** platinum resistant ovarian, fallopian tube or primary peritoneal cancer

**Study Design:** multicenter, phase III, open labeled, randomized, controlled study



NITCHE Clinical Trial  
ENGOT DV51 / MITO 33

**ENGOT**  
European Network of  
Gynaecological Oncological Trial groups

Multicentre  
Italian  
Trials  
in Ovarian  
cancer  
**MITO**

**CEEGOG** | Central and Eastern European  
Gynecologic Oncology Group

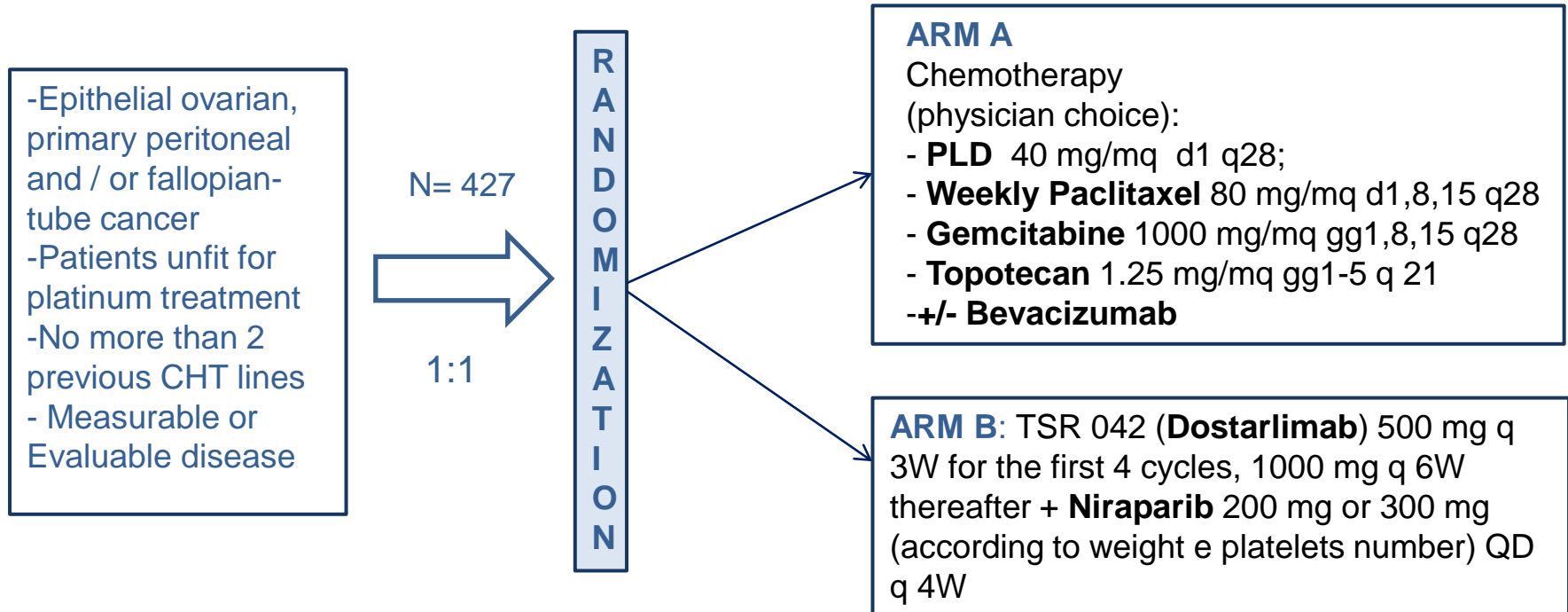
**HeCOG**  
Hellenic  
Cooperative  
Oncology Group

**MaNGO**  
Mediterranean Gynecologic Oncology Group

**ARCAGY - GINECO**

**NOGGO**  
Netherlands Ovarian  
Gynecologic Oncology Group

# STUDY DESIGN



## Stratification Factors:

- HRD status (HRD positive vs negative vs unknown)
- PDL 1 status
- Previous immunotherapy treatment
- Previous parp inhibitor treatment
- Bevacizumab treatment

## Primary Objective:

- Overall survival (OS)

## Secondary Objectives:

- PFS
- TFST
- ORR



**NItCHE Clinical Trial**  
ENGOT DV51 / MITO 33

**ENGOT**  
European Network of  
Gynaecological Oncological Trial groups

Multicentre  
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Gynecologic Oncology Group

**HCOG**  
Hellenic  
Cooperative  
Oncology Group

**MaNGO**  
Mediterranean Gynecologic Oncology

**ARCAGY - GINECO**

**NOGGO**  
e.V.  
Niederrheinische Onkologische  
Gynäkologische Gesellschaft

## ACTIVATION STATUS

Country	CA approval	Coordinating EC approval	Status	Open sites
<b>ITALY</b>	<b>09/10/2020</b>	<b>25/11/2020</b>	<b>Study start: 1/12/2020</b>	<b>4</b>
<b>FRANCE</b>	<b>07/05/2021</b>	<b>04/05/2021</b>	<b>Contracts negotiation in progress</b>	<b>-</b>
<b>GERMANY</b>	<b>19/04/2021</b>	<b>25/02/2021</b>	<b>Waiting for German Federal office for radiation protection approval</b>	<b>-</b>
<b>GREECE</b>	<b>-</b>	<b>-</b>	<b>Submission in progress</b>	<b>-</b>
<b>CZECH REPUBLIC</b>	<b>-</b>	<b>-</b>	<b>Waiting for EC and CA approval</b>	<b>-</b>





NItCHE Clinical Trial  
ENGOT DV51 / MITO 33

**ENGOT**  
European Network of  
Gynaecological Oncological Trial groups

Multicentre  
Italian  
Trials  
in Ovarian  
cancer  
**MITO**



## RECRUITMENT STATUS

Group	Total Screened	Total Screen Failed	Total randomized	Total Treatment Discontinuation
MITO	25	2	19	7
MaNGO	-			
GINECO	-			
NOGGO	-			
HeCOG	-			
CEEGOG	-			
<b>TOTAL study</b>	<b>25</b>	<b>2</b>	<b>19</b>	<b>7</b>



**NItCHE Clinical Trial**  
ENGOT DV51 / MITO 33

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European Network of  
Gynaecological Oncological Trial groups



## MaNGO SITE STATUS

Site	Principal Investigator	Site Status	Total randomized
<b>Istituto Europeo di Oncologia IEO-Milano</b>	<b>Nicoletta Colombo</b>	<b>Contract finalised</b>	-
<b>Spedali Civili Brescia</b>	<b>Germana Tognon</b>	<b>Active</b>	-
<b>IOV IRCCS Padova</b>	<b>Pierfranco Conte</b>	<b>Contract negotiation</b>	-
<b>ASST Lecco</b>	<b>Federica Villa</b>	<b>CE evaluation</b>	
<b>Ospedale Sant'Anna Torino</b>	<b>Dionyssios Katsaros</b>	<b>CE evaluation</b>	-

### STUDY DESIGN

Trial setting: **Ovary/recurrent (ROC-NP)**  
Sponsor(s): **NOVOCURE**  
Planned No. of patients: **540**  
FPI: **expected Q1 2019**

**Primary endpoint: OS**

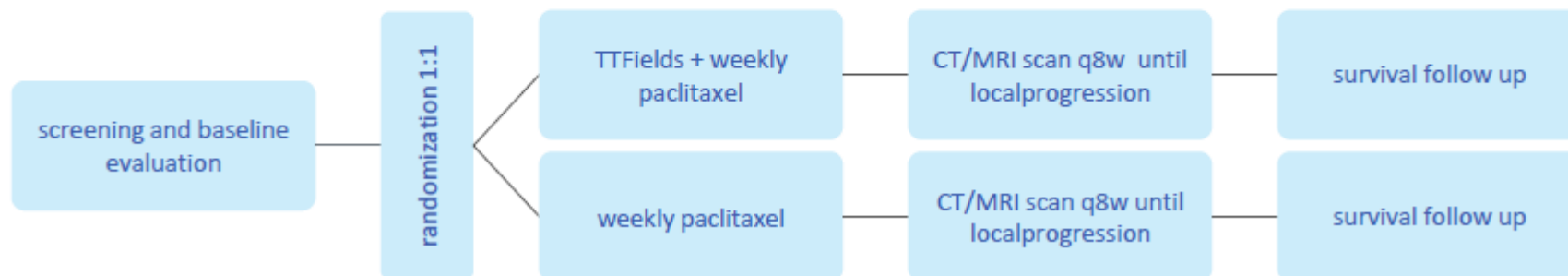
**Secondary endpoints:** PFS, ORR, severity and frequency of adverse events, QOL, time to undisputable deterioration in health-related QoL / death

**Planned sample size: 540**

**Study population:** Ovarian/primary peritoneal or fallopian tube carcinoma, **maximum two prior lines of systemic therapy following diagnosis of platinum-resistance**, ECOG 0-1

**Study duration:** 48 months (30 months of patient accrual)

**Participant duration:** **expected 12 months on the trial**



## Enrollment status (as of 31Mar2021)

ENGOT Group/Country	Sites open	Patients enrolled
A-AGO/Austria	4	9
BGOG/Belgium	8	76
ISGO/ Israel	4	19
DGOG/ The Netherlands	0	0
CEEGOG/ Czechia, Hungary	7	42
NOGGO/ Germany	3	17
PGOG/Poland	3	1
MANGO/Italy	3	26
MITO/Italy	5	61
SAKK/Switzerland	4	15
GEICO/Spain	7	17
Canada	0	0
GOG Partners/USA	41	102
<b>TOTAL</b>	<b>89</b>	<b>385</b>

	31-Jan-2021	31-Mar-2021
Enrollment	312 (58%)	385 (71%)
ENGOT	238	283
GOG	74	102

## MIRASOL

### Enrollment and Key Eligibility

- 430 patients/330 events for PFS by INV
- Platinum resistant disease (<6 months PFI)
- Prior Bev and PARP allowed
- BRCAmut patients allowed

### Statistical Assumptions

- $\alpha=0.05$  (two-sided), Power = 90%, HR=0.7; control arm mPFS 3.5 mo

### Mirvetuximab Soravtansine

6 mg/kg (adjusted ideal body weight)  
once every 3 weeks

### 1:1 Randomization

STRATIFICATION FACTORS  
IC Chemotherapy Choice  
(Paclitaxel, PLD, Topotecan)  
Prior therapies  
(1 vs 2 vs 3)

### Investigator's Choice Chemotherapy

Paclitaxel, PLD<sup>†</sup>, or  
Topotecan

*Paclitaxel: 80 mg/m<sup>2</sup> weekly*  
*PLD: 40 mg/m<sup>2</sup> once every 4 weeks*  
*Topotecan: 4 mg/m<sup>2</sup> on Days 1, 8, and 15 every 4 weeks; or 1.25 mg/m<sup>2</sup> on Days 1-5 every 3 weeks*

### Primary Endpoint

**Progression-free survival by INV**  
*BICR\* for sensitivity analysis*

### Secondary Endpoints

Overall response rate by INV  
Overall survival  
Patient reported outcomes

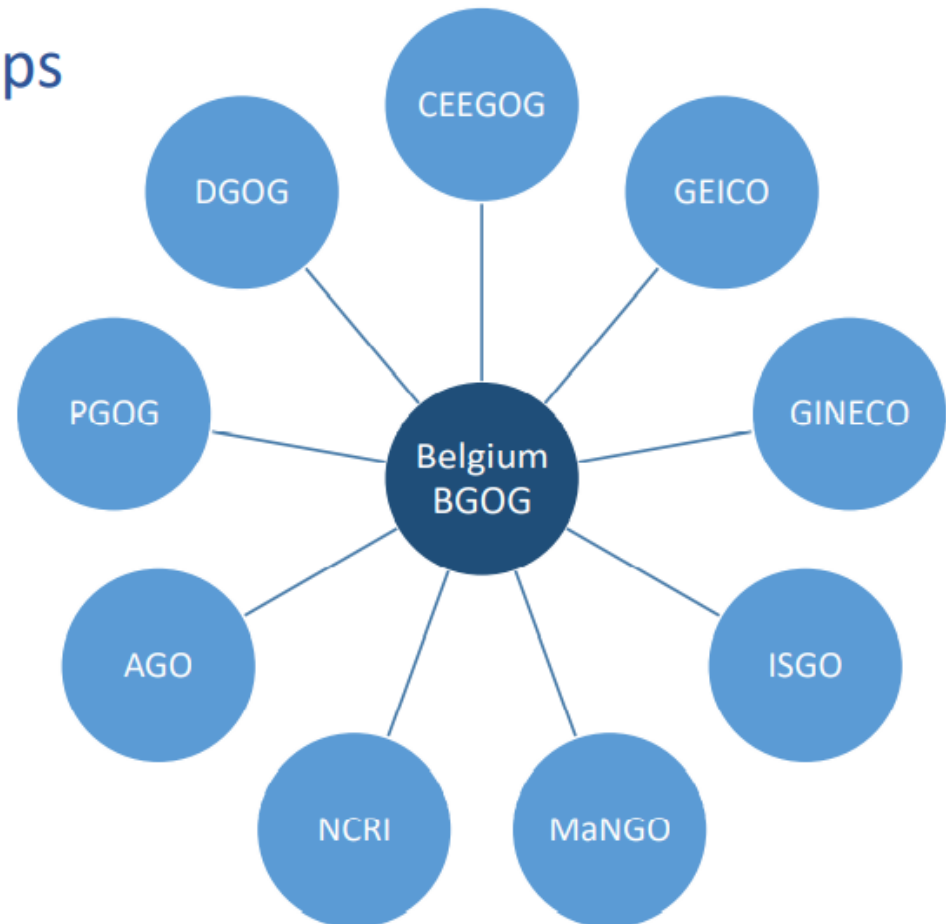
\*BICR: Blinded Independent Central Review  
<sup>†</sup>PLD: pegylated liposomal doxorubicin

ENGOT Model: C  
Sponsor: Immunogen  
Planned No. of patients: 430  
Trial Status: Recruiting

# MIRASOL- Update june 2021

## ENGOT Groups

- 10 participating ENGOT groups
- 47 sites activated
- 236 patients screened
- **38 patients enrolled**



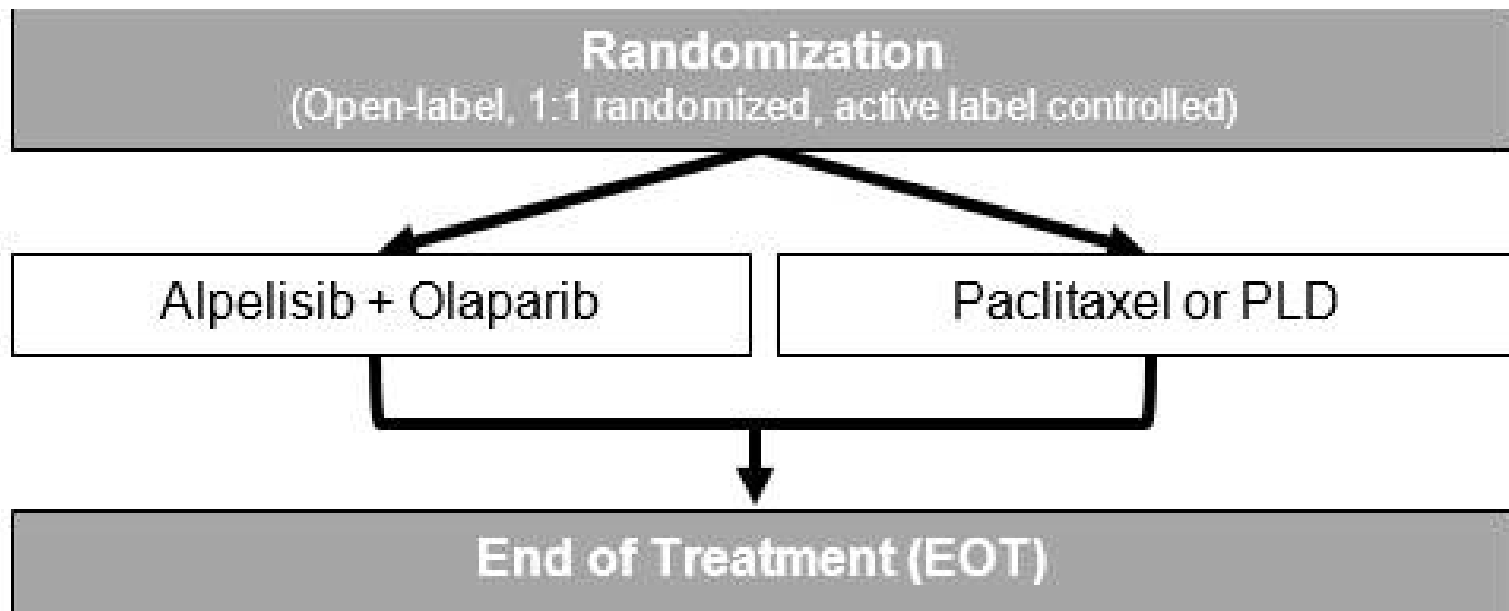
# MaNGO (Italy)



**immunogen**

Site	Activation status	Total screened	Total Randomized	Comments
IRCCS - Istituto Europeo di Oncologia (The European Institute of Oncology) (IEO)	Activated	24	3	
Azienda Socio Sanitaria Territoriale degli Spedali Civili di Brescia	Activated	1	0	
Ospedale Mauriziano Umberto I	Activated	0	0	
Servizio Sanitario Regionale Emilia-Romagna	Activated	0	0	
Azienda Ospedaliera di Lecco	SIV: 10-Jun-2021			
IOV Istituto Oncologico	SIV: 7-Jun-2021			
Azienda Ospedaliera Città della Salute e della Scienza di Torino	SIV: 22-Jun-2021			
<b>Total: 7</b>		<b>25</b>	<b>3</b>	

# Epik-o



322 Pazienti wtBRCA; ammesso precedente PARP e bev; endpoint primario PFS



PARPi and PI3Ki

DNA single strand  
brakes (SSB)

PARPi inhibits

DNA double strand  
brakes (DSB)  
Homologous  
recombination (high-  
fidelity repair)

MUTATION  
inhibits

DNA double strand  
brakes (DSB)  
Non-homologous  
end joining (error-  
prone repair)

PARPi promotes

SYNTHETIC LETHALITY

A Phase 3, Randomized, Double-Blind, Adaptive,  
Placebo/Paclitaxel-Controlled Study of AVB-S6-500  
in Combination with Paclitaxel in Patients with  
Platinum-Resistant Recurrent Ovarian Cancer

ENGOT-ov66 ARAVIVE

# GAS6/AXL Signaling Pathway

**GAS6 and AXL are overexpressed in many cancers and associated with tumor growth, metastasis, drug resistance, and poor overall survival**

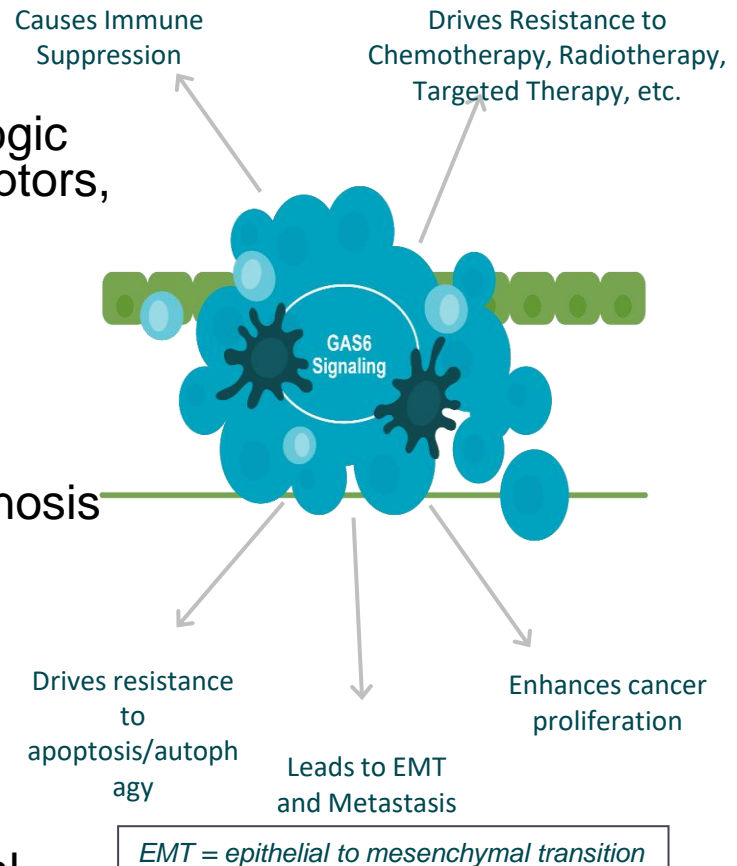
- GAS6 is growth factor that regulates several biologic processes in cells through interaction with its receptors, including AXL, Tyro3, and Mer

- GAS6 is the sole activating ligand of AXL

- GAS6/AXL signaling is key driver of cell migration/invasion, and associated with poor prognosis in cancer/fibrosis

- Pathway associated with acquired resistance to chemo, platinum-containing therapy, and targeted agents

- Inhibition of GAS6 & AXL has no toxicity to normal tissue



# AVB-S6-500

## AVB-500

**Ultra-high affinity decoy protein** that targets the GAS6/AXL signaling pathway

**Granted FDA Fast Track Designation** in Platinum Resistant Ovarian Cancer (PROC)

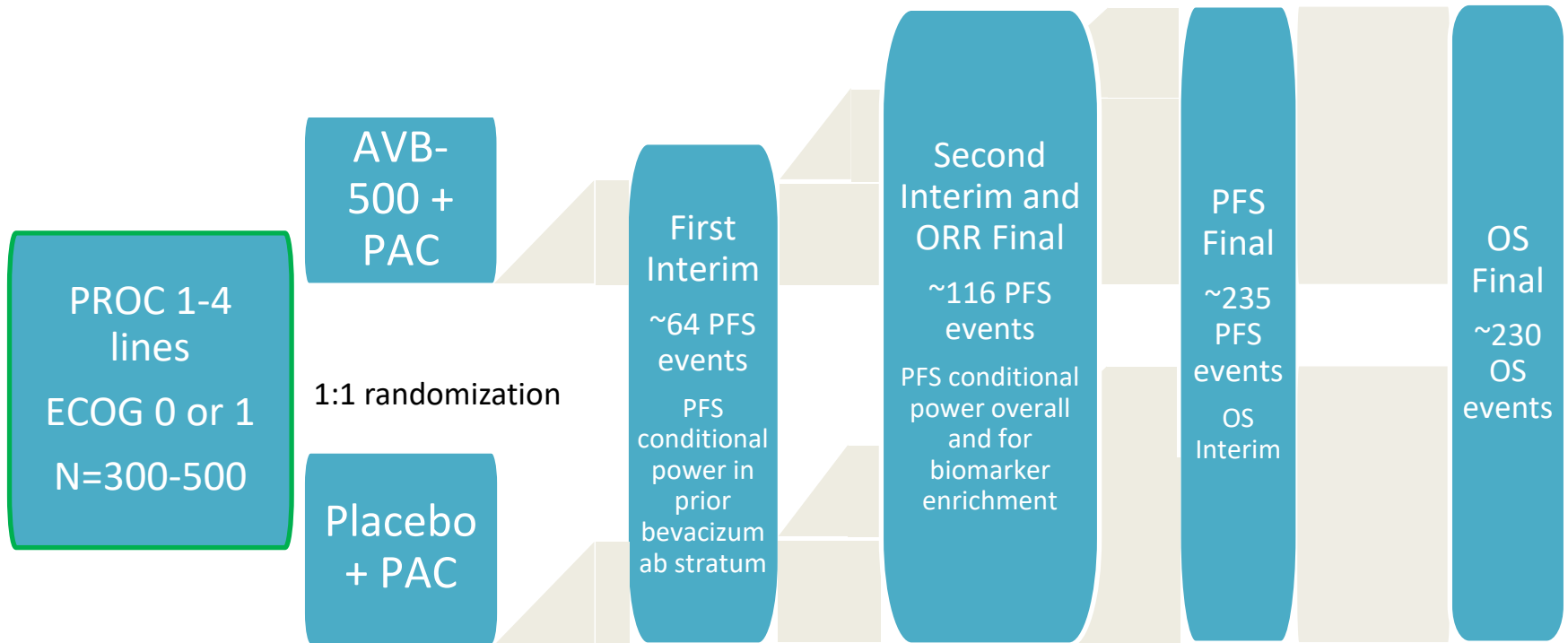
**Neutralizes GAS6**, starving tumors of signal that promotes growth, invasion, and metastasis

**Ideal Profile for Combination** with chemotherapy, checkpoint inhibitors and PARP inhibitors in broad range of indications

**Well-tolerated**, with no unexpected dose-limiting safety or tolerability issues

**Four Clinical Trials Underway**  
Phase 3 in PROC; Phase Ib/2 in Renal Cell Cancer & 2 PDL1 combo trials (PROC & Urothelial Cancer)

# AVB500-OC-004 Study Design – Current



## Stratification

- Time since recurrence (<3m, ≥ 3m)
- Prior lines (1-2, 3-4)
- Prior bevacizumab (yes, no)
- First interim addresses unknowns about treatment effect in prior bevacizumab subjects
- Second interim addresses unknowns about treatment effect in biomarker enriched subjects
- Adaptive Design Goal: PFS Final analysis with at least 97% power to detect  $HR \leq 0.60$  at 1-sided  $\alpha=0.025$ , median PFS of 3.9m in placebo group,  $\leq 2\%$  LTFU, 18 months accrual of 300 subjects from final target population, where  $HR=0.60$  is expected to correspond to median difference of 2.6m

## Ovaio 1° linea

- ENGOT ov33 - TRUST
- ENGOT ov46 - DUO-O
- ENGOT ov43
- ENGOT ov63 NIRVANA (new)
- ENGOT ov57 AGO-OVAR 28 (new)

## Ovaio recidiva platino sensibile

- ENGOT ov38 - OReO
- ENGOT ov41 - ANITA

## Ovaio recidiva platino resistente

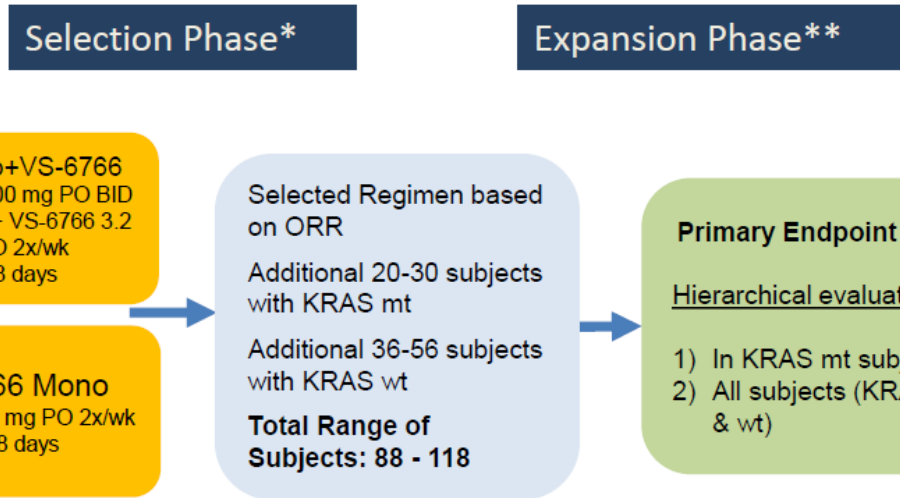
- ENGOT ov51 - NiTChE
- ENGOT ov50
- ENGOT ov55 - MIRASOL
- EPIK-O
- ENGOT-ov66 (ARAVIVE)

## Carcinoma ovarico di basso grado

- ENGOT-ov60

**VS-6766-201**  
**(ENGOT-ov60/NCRI; GOG-3052)**

International CI/ENGOT lead: Susana Banerjee  
GOG Foundation lead: Rachel Grisham



\*Selection Phase – KRAS mt only

\*\*Expansion Phase – final sample size to be adjusted based on adaptive design