

# Actualités 2012-2013 sur les cancers gynécologiques

*Actualités et controverses*  
*Mont Saint-Michel, 17 mai 2013*

Dr Hardy-Bessard  
Clinique Armoricaine, Saint-Brieuc

COL UTERIN

# Paclitaxel et carboplatine dans le cancer du col utérin

## Schéma de l'étude

- Étude de phase III, randomisée, multicentrique (30 centres)
  - Cancer du col de stade IVB ou récurrent, non éligible à un traitement curatif par chirurgie/radiothérapie

### Stratification

- Tumeur en dehors du site d'irradiation antérieur (oui versus non)
- Statut OMS 0-1 versus 2
- Carcinome épidermoïde ou non
- Centre



**Traitement standard : PCisP**  
 Paclitaxel 135 mg/m<sup>2</sup> 24h J1  
 + cisplatine 50 mg/m<sup>2</sup> 2h J2  
 (n = 127)

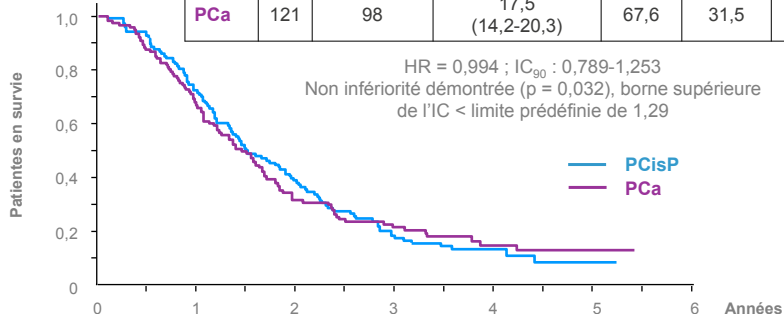
Tous les 21 jours pendant 6 cycles

**Traitement expérimental : PCa**  
 Paclitaxel 175 mg/m<sup>2</sup> 3h J1  
 + carboplatine ASC5 1h J1  
 (n = 126)

ASCO® 2012 - D'après Kitagawa R et al., abstr. 5006 actualisé

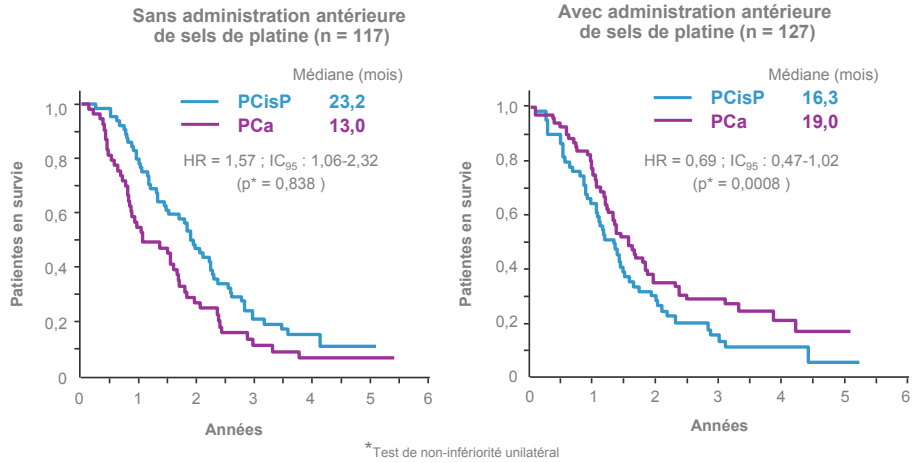
## Survie globale

Bras	n	Événements	Médiane (mois) - IC <sub>95</sub>	SG à 1 an (%)	SG à 2 ans (%)	SG à 3 ans (%)
PCisP	123	106	18,3 (16,1-22,9)	72,4	38,8	18,3
PCa	121	98	17,5 (14,2-20,3)	67,6	31,5	21,3



ASCO® 2012 - D'après Kitagawa R et al., abstr. 5006 actualisé

## Effets sur la SG de l'administration antérieure de sels de platine



ASCO® 2012 - D'après Kitagawa R et al., abstr. 5006 actualisé

OVAIRE  
1° ligne

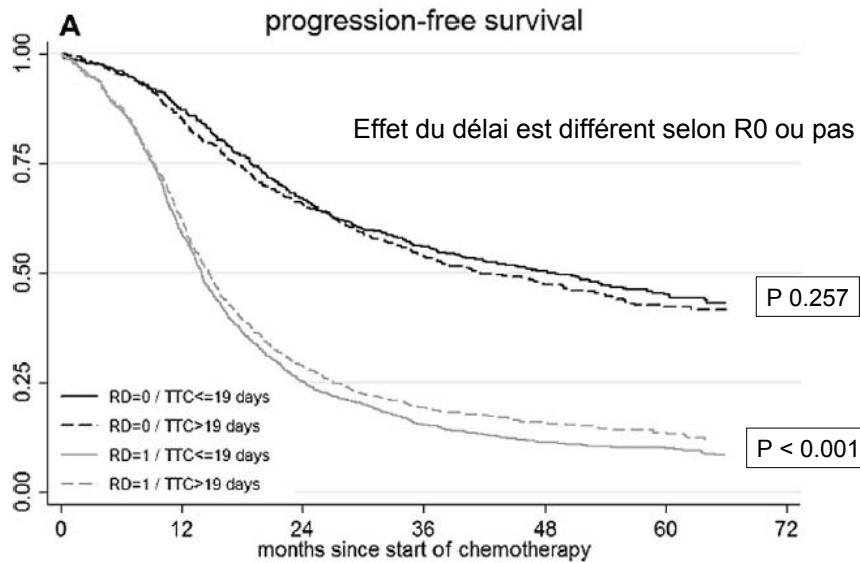


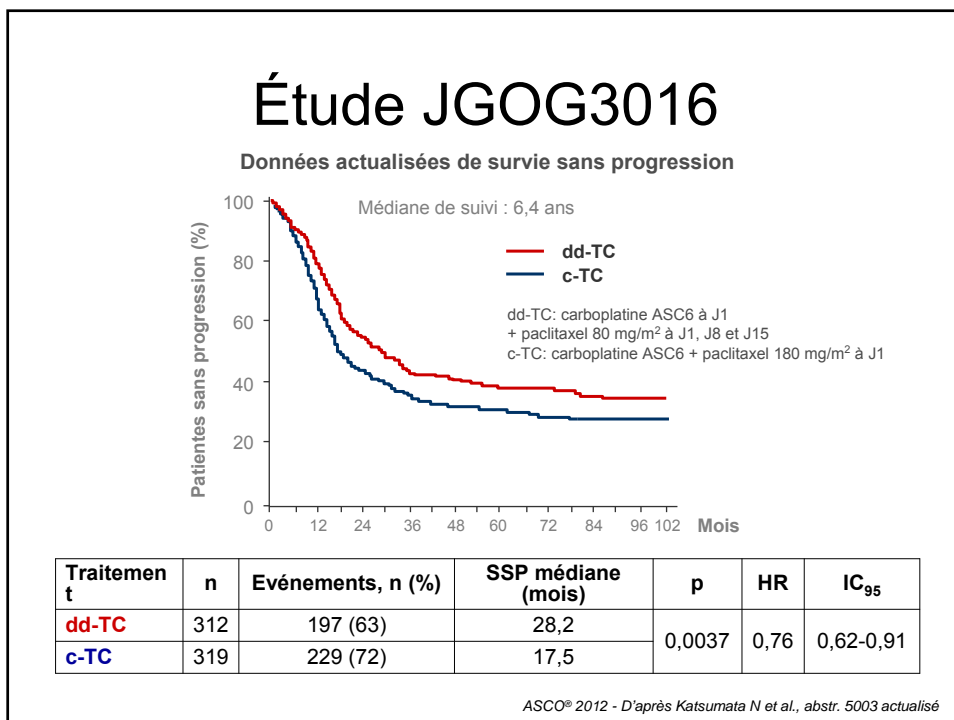
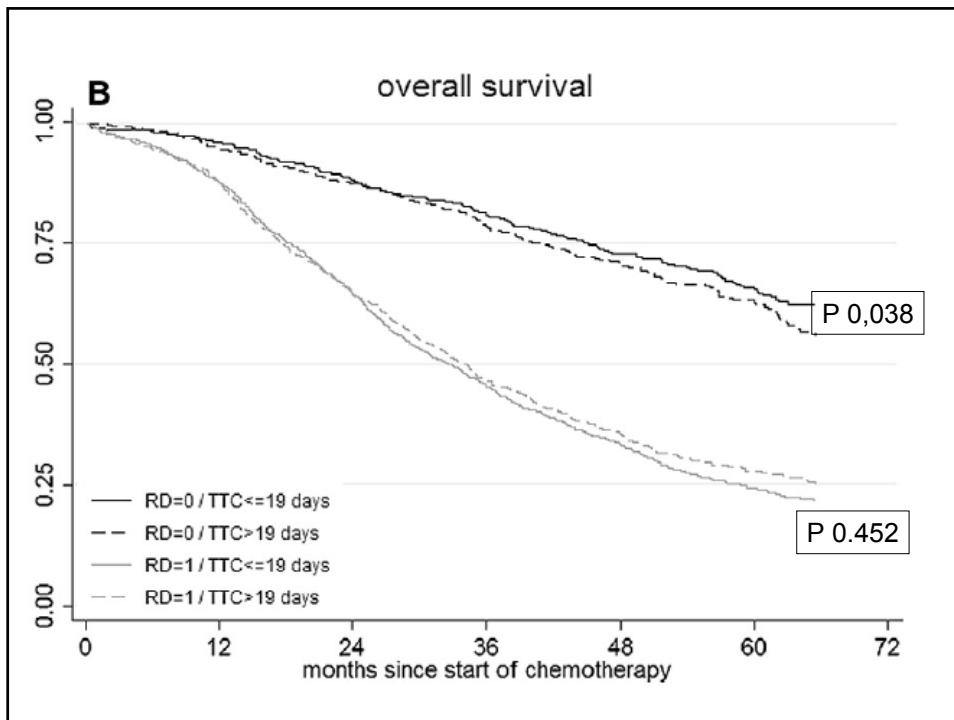
### Prognostic impact of the time interval between surgery and chemotherapy in advanced ovarian cancer: Analysis of prospective randomised phase III trials

S. Mahner<sup>a,\*</sup>, C. Eulenburg<sup>b,1,2</sup>, A. Staehle<sup>c,1</sup>, K. Wegscheider<sup>b,1</sup>, A. Reuss<sup>d,1</sup>, E. Pujade-Lauraine<sup>e,3</sup>, P. Harter<sup>f,1</sup>, I. Ray-Coquard<sup>g,3</sup>, J. Pfisterer<sup>h,1</sup>, A. du Bois<sup>f,1</sup>

- 3 phases III randomisées de 95 à 2002,
- 1° ligne, platine taxanes
- 3326 patientes
  
- Intervalle médian : 19 jours

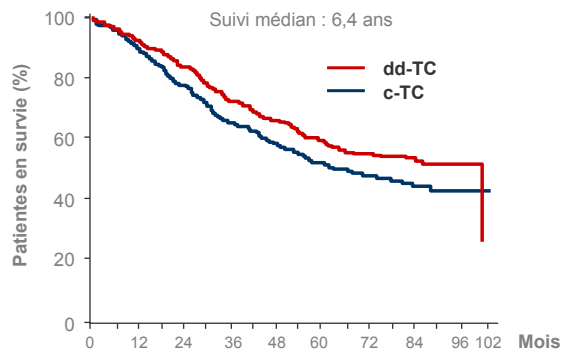
S. Mahner et al. / European Journal of Cancer 49 (2013) 142–149





# Étude JGOG3016 (2)

Données actualisées de survie globale

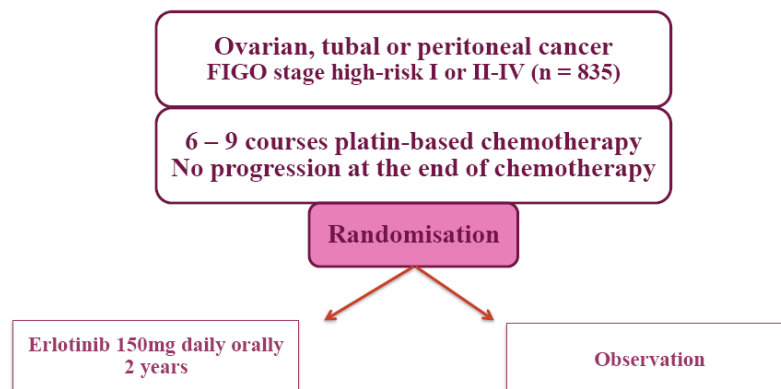


Traitement	n	Décès, n (%)	SG médiane	Survie à 5 ans (%)	p	HR	IC <sub>95</sub>
dd-TC	312	139 (45)	Non atteinte	58,7	0,039	0,79	0,63-0,99
c-TC	319	168 (53)	62,2	51,1			

ASCO® 2012 - D'après Katsumata N et al., abstr. 5003 actualisé

OVAIRE  
Maintenance

## Randomised trial on Erlotinib vs observation in first-line ovarian cancer



Primary Endpoint: Progression-free survival

Secondary endpoints: Overall Survival, Quality of Life, Complications

PRESENTED BY: Ignace Vergote

PRESENTED AT: ASCO Annual '12 Meeting

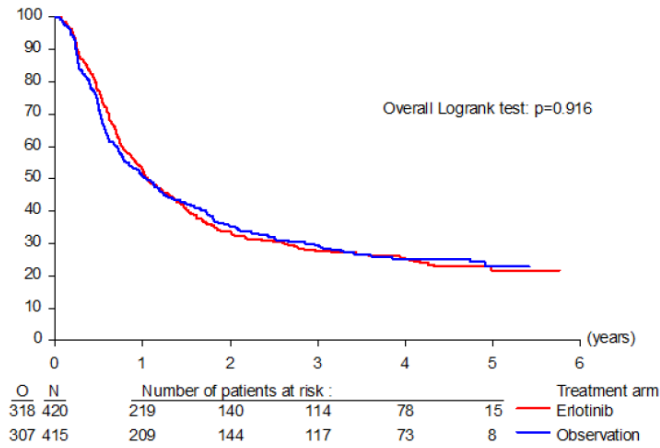
## Randomised trial on Erlotinib vs observation in first-line ovarian cancer: Eligibility

- Histologically confirmed ovarian epithelial, primary peritoneal, and fallopian tube cancer:
  - High-risk FIGO stage I (grade 3, or aneuploid grade 1 or 2, or clear cell), or
  - Stages II-IV.
- CR, PR or SD at end of first-line therapy.
- No more than 6 weeks since the end of first line chemotherapy.
- 6-9 cycles of Carboplatin AUC 5-6/3weeks or Cisplatin dose > 60 mg/m<sup>2</sup>/3 weeks alone or in combination with other agents.

PRESENTED BY: Ignace Vergote

PRESENTED AT: ASCO Annual '12 Meeting

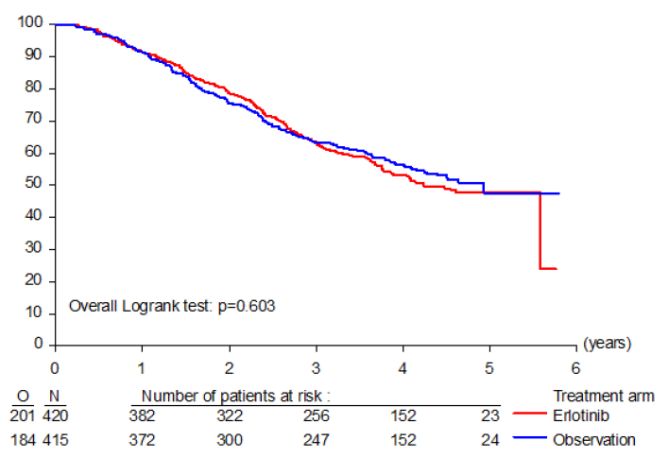
## Randomised trial on Erlotinib vs observation in first-line ovarian cancer: Progression-free survival



PRESENTED BY: Ignace Vergote

PRESENTED AT: ASCO Annual '12 Meeting

## Randomised trial on Erlotinib vs observation in first-line ovarian cancer: Overall Survival

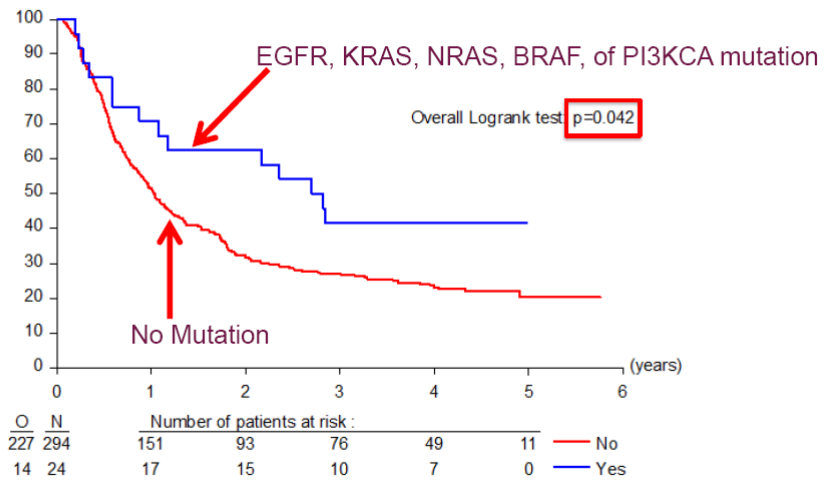


PRESENTED BY: Ignace Vergote

PRESENTED AT: ASCO Annual '12 Meeting



## EGFR related Mutation analysis (n = 318) and Progression-free survival



## CONCLUSION

- Mieux vaut réfléchir avant d'agir !!!!

## MIMOSA : Abagovomab en maintenance

- Anticorps monoclonal murin anti-idiotype dont l'épitope est miroir du CA125
- 888 patientes stade III ou IV, en RC
- Versus placebo
- Maintenance 21 mois ou jusqu'à récurrence
- **Résultats :**
  - Induction d'une réponse immunitaire mesurable
  - Pas d'amélioration de la RFS ni OS

JCO, Avril 2013

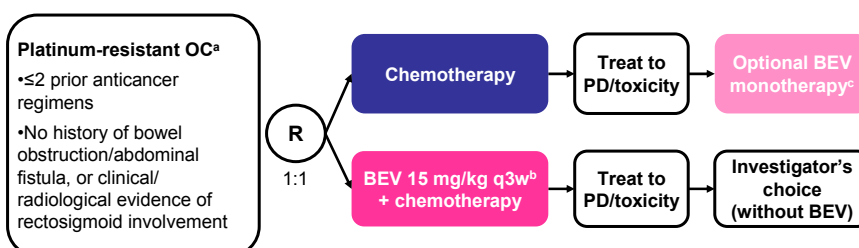
## OVAR 16

- Pazopanib en maintenance
- Résultats ASCO 2013

# OVAIRE

## Récidive platine résistante

### AURELIA trial design



**Stratification factors:**

- Chemotherapy selected
- Prior anti-angiogenic therapy
- Treatment-free interval (<3 vs 3–6 months from previous platinum to subsequent PD)

**Chemotherapy options (investigator's choice):**

- Paclitaxel 80 mg/m<sup>2</sup> days 1, 8, 15, & 22 q4w
- Topotecan 4 mg/m<sup>2</sup> days 1, 8, & 15 q4w (or 1.25 mg/m<sup>2</sup>, days 1–5 q3w)
- PLD 40 mg/m<sup>2</sup> day 1 q4w

PD = progressive disease

<sup>a</sup>Epithelial ovarian, primary peritoneal, or fallopian tube cancer; <sup>b</sup>Or 10 mg/kg q2w;

<sup>c</sup>15 mg/kg q3w, permitted on clear evidence of progression

## Statistical design

**Primary objective:** To compare PFS with chemotherapy (CT) alone vs BEV + CT according to RECIST v1.0

**Secondary objectives:** To compare

- Objective response rate (ORR) according to RECIST v1.0 and/or GCIG CA-125 criteria
- Overall survival
- Quality of life
- Safety and tolerability

**Statistical assumptions**

- HR of 0.7 (median PFS 4.0 → 5.7 months with BEV)
- 80% power for 2-sided log-rank test at  $\alpha=0.05$

**Primary analysis:** PFS events in 301 of 361 patients

- Data cut-off: November 14, 2011

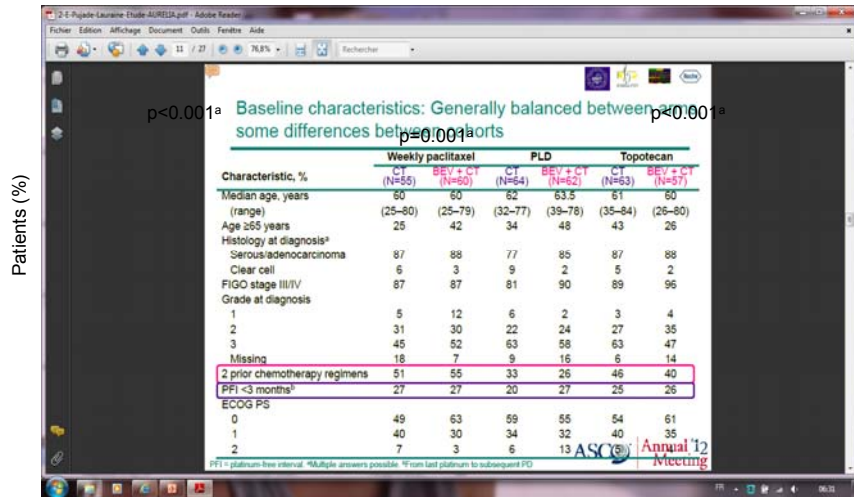
## Baseline characteristics

Characteristic	CT (n=182) n (%)	BEV + CT (n=179) n (%)
Median age, years (range)	61 (25–84)	62 (25–80)
Origin of cancer: Ovary	157 (86)	167 (93)
Serous/adenocarcinoma at diagnosis	152 (84)	156 (87)
Histologic grade at diagnosis		
1	9 (5)	10 (6)
2/3	153 (84)	147 (82)
Prior anti-angiogenic therapy <sup>a</sup>	14 (8)	12 (7)
Two prior chemotherapy regimens	78 (43)	72 (40)
PFI <3 months <sup>a,b</sup>	46 (25)	50 (28)
ECOG PS		
0	99 (54)	107 (60)
1/2	80 (44)	70 (39)
Measurable disease	144 (79)	143 (80)
Ascites	54 (30)	59 (34)

PFI = platinum-free interval

<sup>a</sup>Stratification factor. <sup>b</sup>From last platinum to subsequent PD

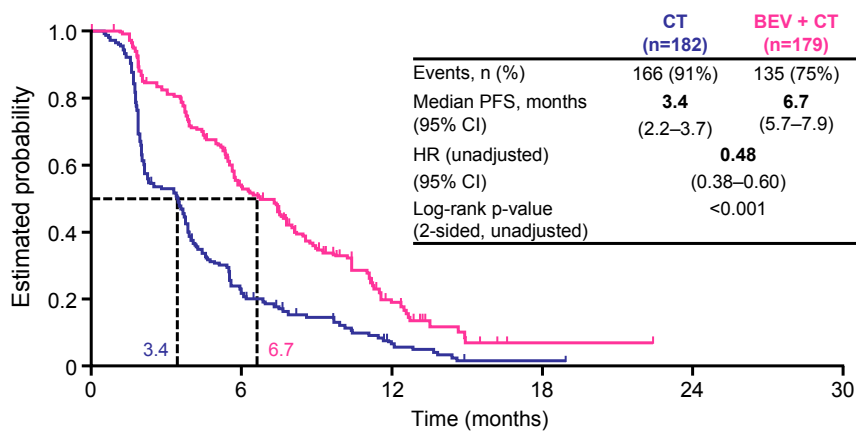
## Summary of best overall response rates



<sup>a</sup>Two-sided chi-square test with Schouten correction

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## Progression-free survival



No. at risk:

	182	93	37	20	8	1	1	0	0
CT	182	93	37	20	8	1	1	0	0
BEV + CT	179	140	88	49	18	4	1	1	0

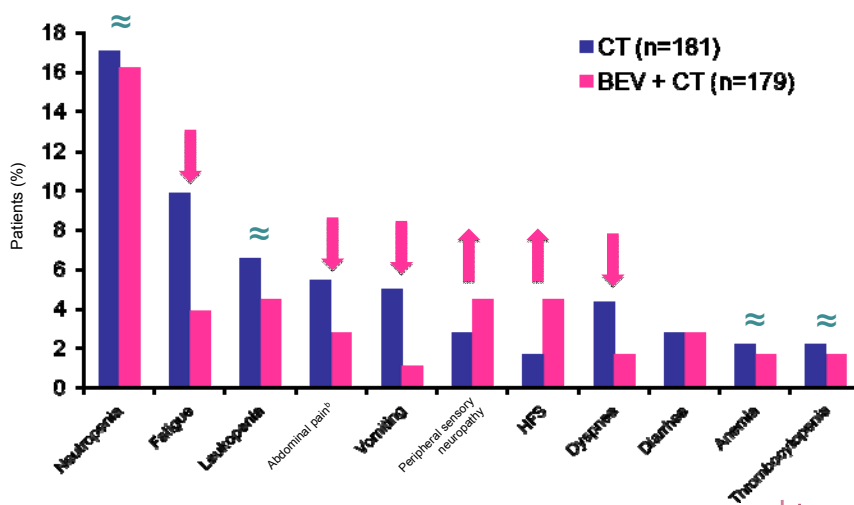
Median duration of follow-up: 13.9 months (CT arm) vs 13.0 months (BEV + CT arm)

## Subgroup analysis of PFS

Subgroup	No. of patients	Median PFS, months		HR <sup>a</sup>	BEV + CT better	CT better
		CT	BEV + CT			
All patients	361	3.4	6.7	0.48		
Age, years						
<65	228	3.4	6.0	0.49		
≥65	133	3.5	7.8	0.47		
PFI, months <sup>b</sup>						
<3	96	2.1	5.4	0.53		
3-6	257	3.6	7.8	0.46		
Measurable disease, cm						
No (<1)	74	3.7	7.5	0.46		
Yes (1-<5)	126	3.3	7.5	0.50		
Yes (≥5)	161	3.3	6.0	0.47		
Ascites						
Yes	113	2.5	5.6	0.40		
No	248	3.5	7.6	0.48		
Chemotherapy						
Paclitaxel	115	3.9	10.4	0.46		
PLD	126	3.5	5.4	0.57		
Topotecan	120	2.1	5.8	0.32		

<sup>a</sup>Unadjusted. <sup>b</sup>Missing n=8

## Additional grade ≥3 adverse events<sup>a</sup> in ≥2% of patients in either arm



HFS = hand-foot syndrome

<sup>a</sup>Preferred terms. <sup>b</sup>Includes abdominal pain upper

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## Adverse events of special interest

Grade ≥3 adverse events of special interest, n (%)	CT (n=181)	BEV + CT (n=179)
Hypertension	2 (1.1)	13 (7.3)
Grade ≥2	12 (6.6)	36 (20.1)
Proteinuria	0	3 (1.7)
Grade ≥2	1 (0.6)	19 (10.6)
GI perforation	0	3 (1.7)
Grade ≥2	0	4 (2.2)
Fistula/abscess	0	2 (1.1)
Grade ≥2	0	4 (2.2)
Bleeding	2 (1.1)	2 (1.1)
Thromboembolic event	8 (4.4)	9 (5.0)
Arterial	0	4 (2.2)
Venous	8 (4.4)	5 (2.8)
Wound-healing complication	0	0
RPLS	0	1 (0.6)
CHF	1 (0.6)	1 (0.6)
Cardiac disorders (excluding CHF)	0	0

RPLS = reversible posterior leukoencephalopathy syndrome; CHF = congestive heart failure

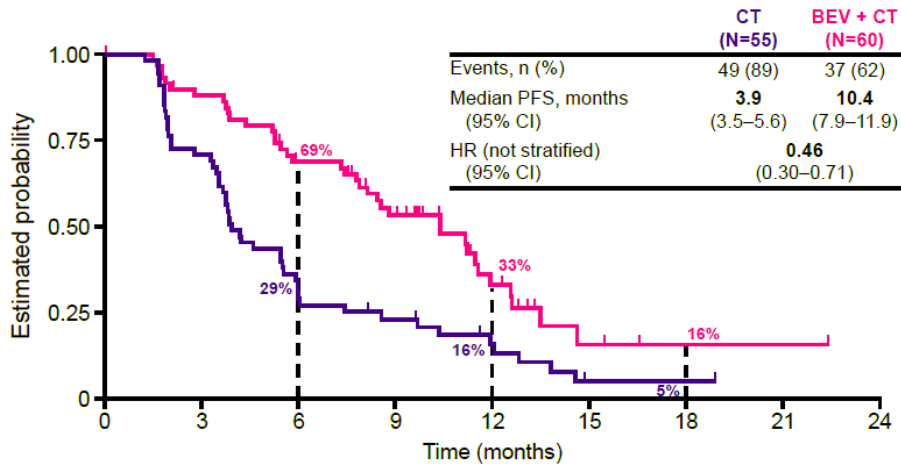
## Baseline characteristics: Generally balanced between arms, some differences between cohorts

Characteristic, %	Weekly paclitaxel		PLD		Topotecan	
	CT (N=55)	BEV + CT (N=60)	CT (N=64)	BEV + CT (N=62)	CT (N=63)	BEV + CT (N=57)
Median age, years (range)	60 (25–80)	60 (25–79)	62 (32–77)	63.5 (39–78)	61 (35–84)	60 (26–80)
Age ≥65 years	25	42	34	48	43	26
Histology at diagnosis <sup>a</sup>						
Serous/adenocarcinoma	87	88	77	85	87	88
Clear cell	6	3	9	2	5	2
FIGO stage III/IV	87	87	81	90	89	96
Grade at diagnosis						
1	5	12	6	2	3	4
2	31	30	22	24	27	35
3	45	52	63	58	63	47
Missing	18	7	9	16	6	14
2 prior chemotherapy regimens	51	55	33	26	46	40
PFI <3 months <sup>b</sup>	27	27	20	27	25	26
ECOG PS						
0	49	63	59	55	54	61
1	40	30	34	32	40	35
2	7	3	6	13	5	4

PFI = platinum-free interval. <sup>a</sup>Multiple answers possible. <sup>b</sup>From last platinum to subsequent PD

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## PFS: Cohort treated with paclitaxel

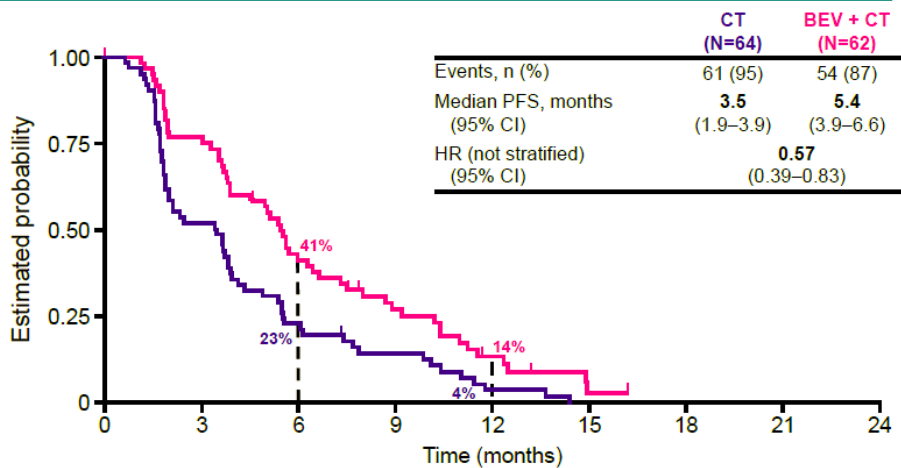


No. at risk:

	0	3	6	9	12	15	18	21	24
CT	55	39	16	11	6	1	1	0	0
BEV + CT	60	51	38	27	11	3	1	1	0

Median duration of follow-up: 12.7 months (CT arm) vs 12.8 months (BEV + CT arm)

## PFS: Cohort treated with PLD



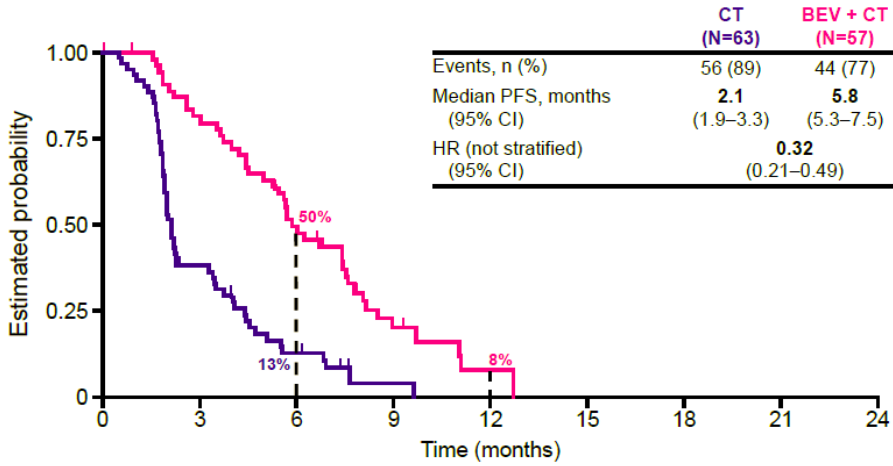
No. at risk:

	0	3	6	9	12	15	18	21	24
CT	64	32	14	8	2	0	0	0	0
BEV + CT	62	46	24	14	6	1	0	0	0

Median duration of follow-up: 15.8 months (CT arm) vs 16.7 months (BEV + CT arm)



## PFS: Cohort treated with topotecan

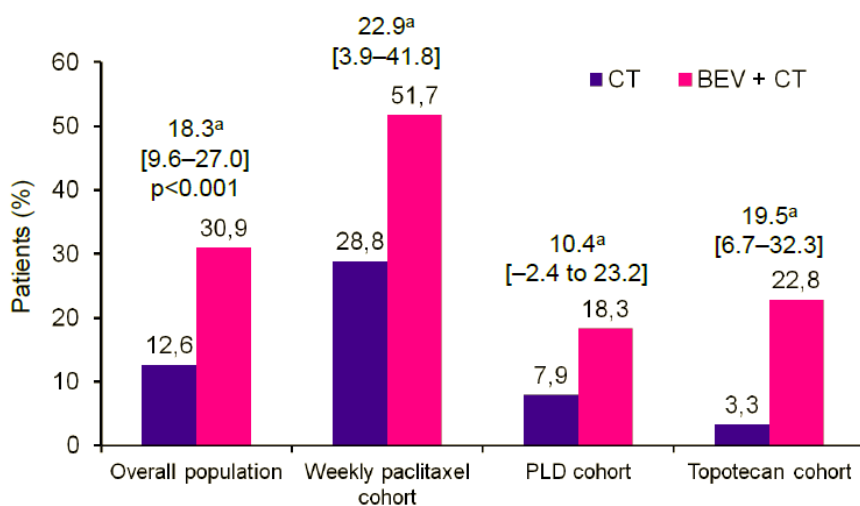


No. at risk:

	0	3	6	9	12	15	18	21	24
CT	63	22	7	1	0	0	0	0	0
BEV + CT	57	43	26	8	1	0	0	0	0

Median duration of follow-up: 9.0 months (CT arm) vs 10.5 months (BEV + CT arm)

## Summary of best overall response rates (RECIST, CA-125 criteria or both)



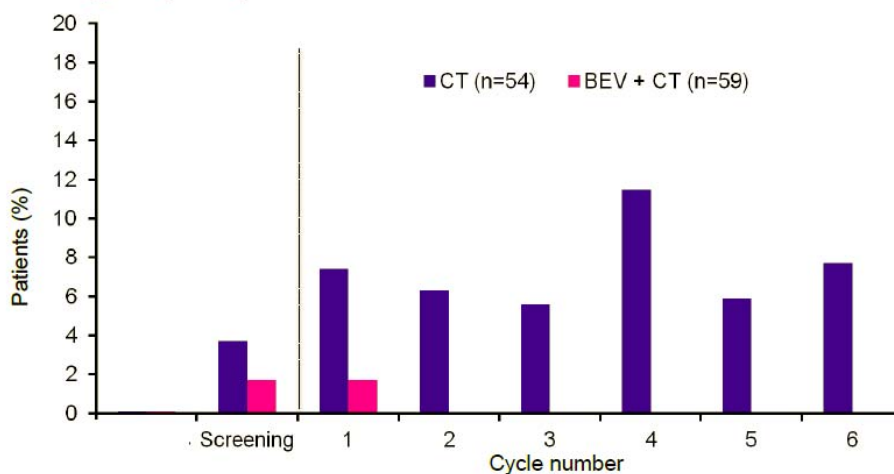
<sup>a</sup>Difference in overall response rate: 95% CI with Hauck–Anderson continuity correction

## Analysis of subgroup of patients with ascites at baseline

- Of the total study ITT population of 361 patients, 113 (31%) had ascites at baseline according to the eCRF
  - 54 (30%) in the CT arm
  - 59 (33%) in the BEV + CT arm
- Exploratory analyses of efficacy and safety in this subgroup were prespecified
- Data cut-off for these analyses was 14 November 2011

CT = chemotherapy; eCRF = electronic case report form; ITT = intent to treat

## Incidence of paracentesis during study therapy: Subgroup of patients with ascites at baseline



No. at risk:

CT	54	54	54	48	36	26	17	13
BEV + CT	59	59	59	57	52	44	37	32

Data not shown for cycles with <10 patients in one or both arms

## Summary

- The primary objective was met
  - PFS HR 0.48 ( $p < 0.001$ ) in favor of BEV combination therapy vs single-agent CT
  - Median PFS: 6.7 vs 3.4 months, respectively
- Significant improvement in ORR
  - 30.9% vs 12.6%, respectively ( $p = 0.001$ ) by RECIST and/or CA-125
- BEV safety profile consistent with previous experience
  - Patients at high risk of GI perforation were excluded from the study
- Overall survival data expected in 2013



## Conclusions

- AURELIA is the first randomized phase III trial in platinum-resistant OC to demonstrate:
  - Benefit with biologic therapy
  - Benefit with a combination regimen versus monotherapy

**Bevacizumab combined with chemotherapy  
should be considered a new standard option  
in platinum-resistant ovarian cancer**

# OVAIRE

## Récidive platine sensible

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JOURNAL OF CLINICAL ONCOLOGY

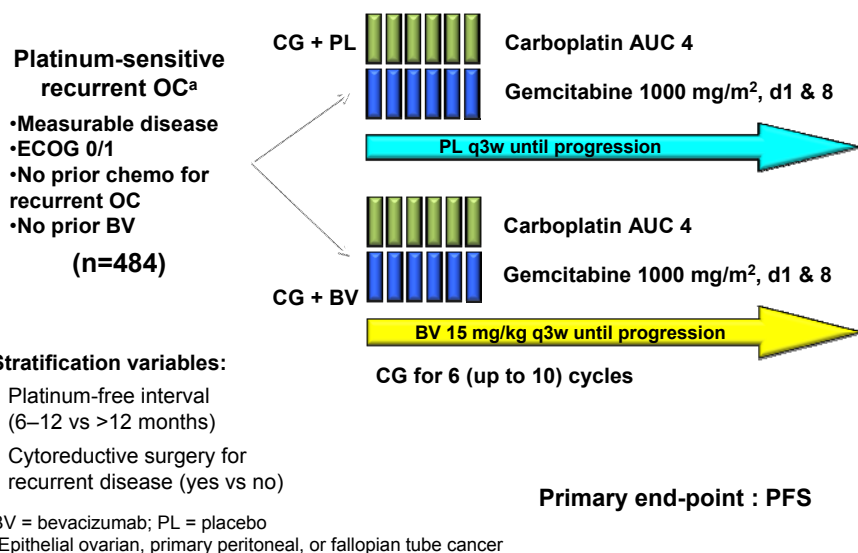
ORIGINAL REPORT

### OCEANS: A Randomized, Double-Blind, Placebo-Controlled Phase III Trial of Chemotherapy With or Without Bevacizumab in Patients With Platinum-Sensitive Recurrent Epithelial Ovarian, Primary Peritoneal, or Fallopian Tube Cancer

*Carol Aghajanian, Stephanie V. Blank, Barbara A. Goff, Patricia L. Judson, Michael G. Teneriello, Amreen Husain, Mika A. Sovak, Jing Yi, and Lawrence R. Nycum*

*Received February 2, 2012; accepted February 2, 2012.*

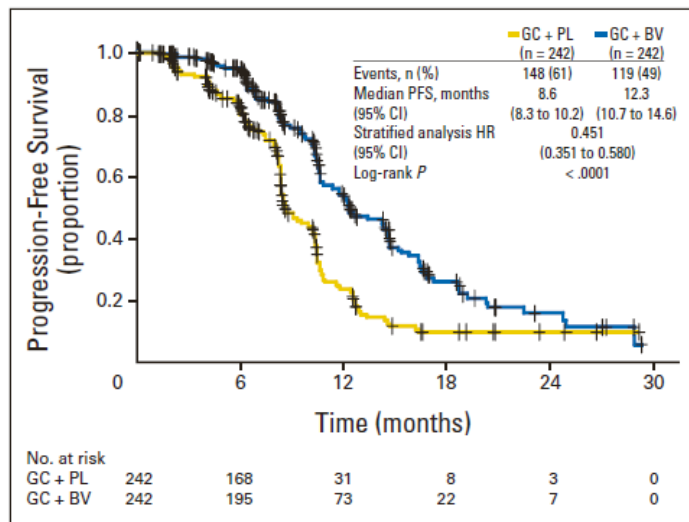
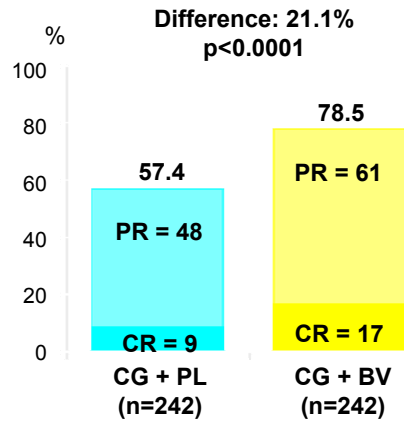
## OCEANS: Study schema



## Patient characteristics

Characteristic	CG + PL (n=242)	CG + BV (n=242)
Median age, years (range)	61 (28–86)	60 (38–87)
Age ≥65 years, %	38	35
Race, %		
White	92	90
Other	8	10
ECOG PS 0, %	76	75
Histologic subtype, %		
Serous	84	78
Mucinous/clear cell	3	5
Other	14	17
Platinum-free interval, %		
6–12 months	42	41
>12 months	58	59
Cytoreductive surgery for recurrent disease, %	10	12

# Objective response



**Fig 4.** Kaplan-Meier estimates of progression-free survival (PFS) assessed by independent review committee, censoring for non-protocol-specified cancer therapy (randomly assigned patients). BV, bevacizumab; GC, gemcitabine plus carboplatin; HR, hazard ratio; PL, placebo.

**Table 2. OS Results to Date**

Result	First Interim OS Analysis*		Second Interim OS Analysis†	
	GC + PL (n = 242)	GC + BV (n = 242)	GC + PL (n = 242)	GC + BV (n = 242)
Median OS, months	29.9	35.5	35.2	33.3
95% CI	26.4 to NE	30.0 to NE	29.9 to 40.3	29.8 to 35.5
HR	0.751		1.027	
95% CI	0.537 to 1.052		0.792 to 1.331	

Abbreviations: BV, bevacizumab; GC, gemcitabine plus carboplatin; NE, not estimable; OS, overall survival; PL, placebo.  
 \*Data cutoff date: September 17, 2010.  
 †Data cutoff date: August 29, 2011.

## AEs of special interest

Patients, %	CG + PL (n=233)	CG + BV (n=247)
ATE, all grades	1	3
VTE, grade ≥3	3	4
CNS bleeding, all grades	<1	1
Non-CNS bleeding, grades ≥3	1	6
CHF, grades ≥3	1	1
Neutropenia, grade ≥3	56	58
Febrile neutropenia, grade ≥3	2	2
Hypertension, grade ≥3	<1	17
Fistula/abscess, all grades	<1	2
GI perforation, all grades	0	0 <sup>a</sup>
Proteinuria, grade ≥3	1	9
RPLS, all grade	0	1
Wound-healing complication, grades ≥3	0	1

ATE = arterial thromboembolic event; CHF = congestive heart failure; GI = gastrointestinal;  
 RPLS = reversible posterior leukoencephalopathy syndrome; VTE = venous thromboembolic event  
<sup>a</sup>Two GI perforations occurred 69 days after last BV dose

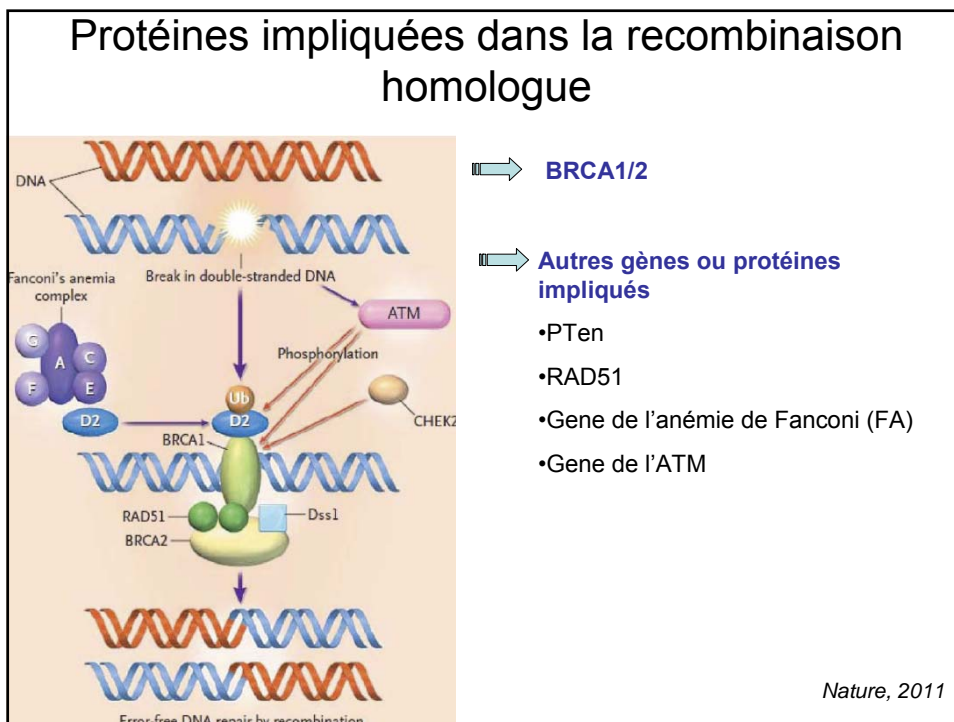
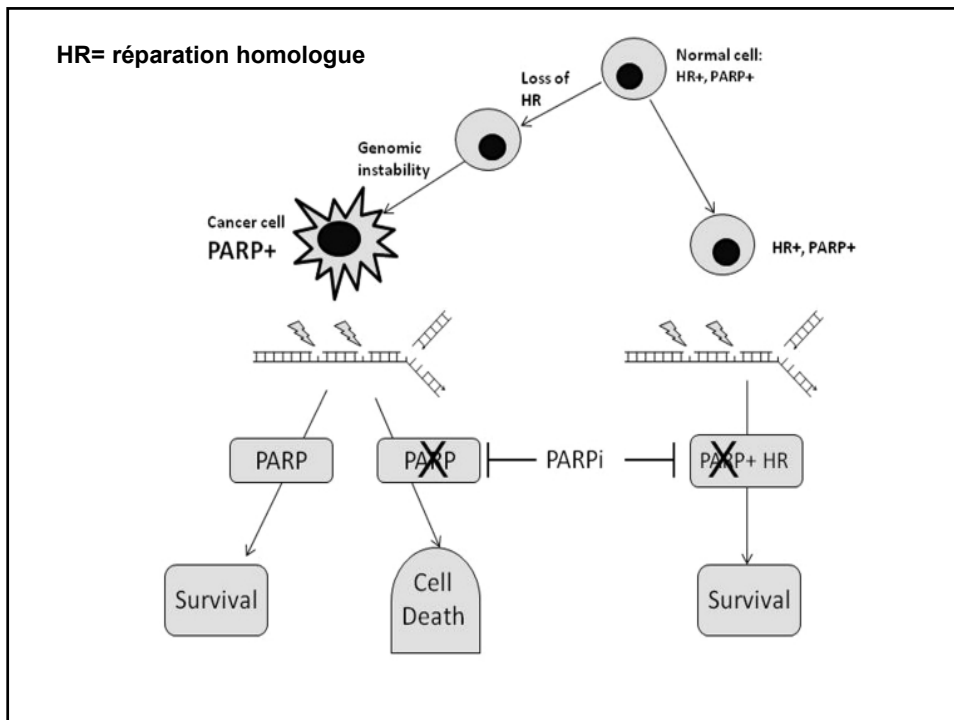
# OVAIRE

## Les anti-parp ??

### Mécanismes de réparation de l'ADN

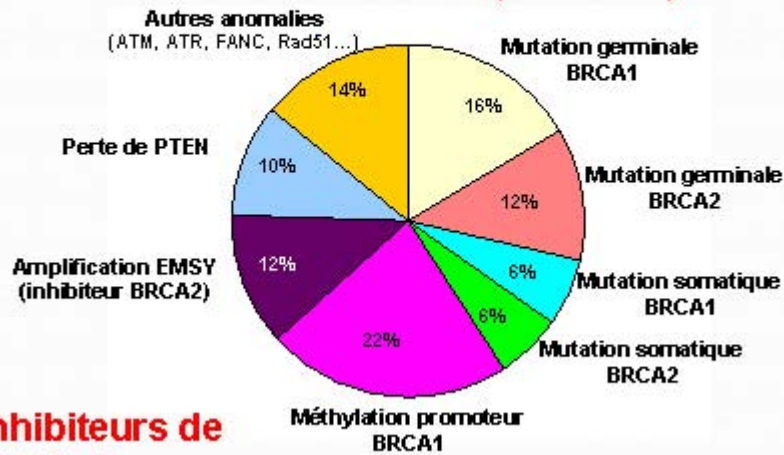
- Réparation de l'excision des bases (Coupures simple brin) (BER)
  - Réparation de l'excision des nucléotides (NER)
  - Recombinaison homologue (coupures double brin)
  - Miss Match Repair (Mésappariement)
- 
- PARP : 5-2 poly ADP ribose polymérase
  - Enzyme impliquée dans la réparation des coupures simple brin d'ADN
  - Cellule normale, en cas de protéine PARP non fonctionnelle, réparation des cassures simples brins par recombinaison homologue





## Déficience de la recombinaison homologue dans les types II

Elle serait **retrouvée dans environ 50% des cas (« BRCAness »)**



Cancer Genome Atlas Research Network, *Nature* 2011

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JOURNAL OF CLINICAL ONCOLOGY

ORIGINAL REPORT

### Phase II, Open-Label, Randomized, Multicenter Study Comparing the Efficacy and Safety of Olaparib, a Poly (ADP-Ribose) Polymerase Inhibitor, and Pegylated Liposomal Doxorubicin in Patients With *BRCA1* or *BRCA2* Mutations and Recurrent Ovarian Cancer

Stan B. Kaye, Jan Lubinski, Ursula Matulonis, Joo Ern Ang, Charlie Gourley, Beth Y. Karlan, Amit Ammon, Katherine M. Bell-McGuinn, Lee-May Chen, Michael Friedlander, Tamar Safra, Ignace Vergote, Mark Wickens, Elizabeth S. Lowe, James Carmichael, and Bella Kaufman

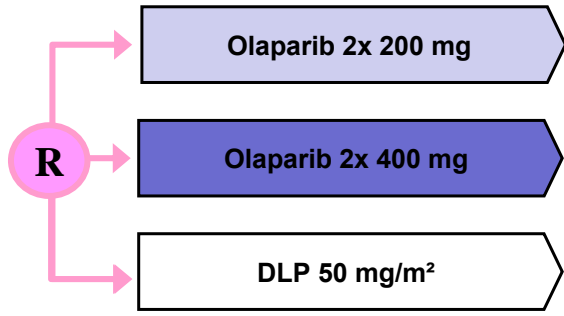
See accompanying editorial on page 247

## Olaparib monothérapie vs doxorubicine liposomale pégylée

97 patients  
BRCA1/BRCA2

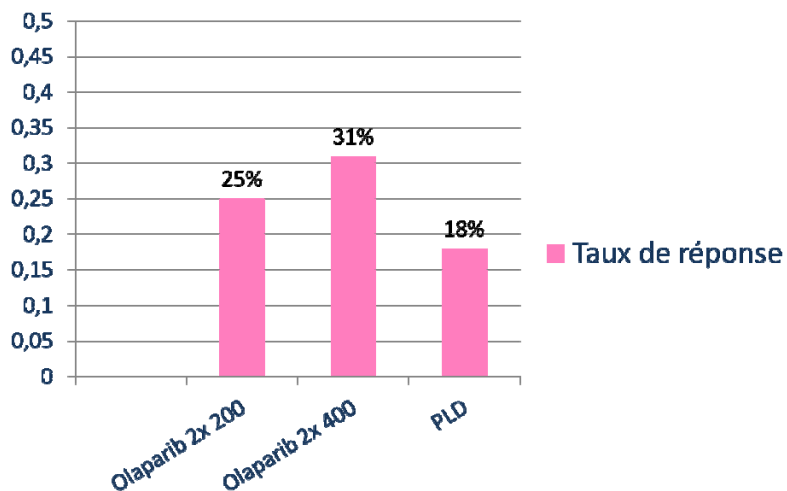
Rechute dans les 12 mois  
suivant le dernier traitement  
avec platine

50% résistant aux platines

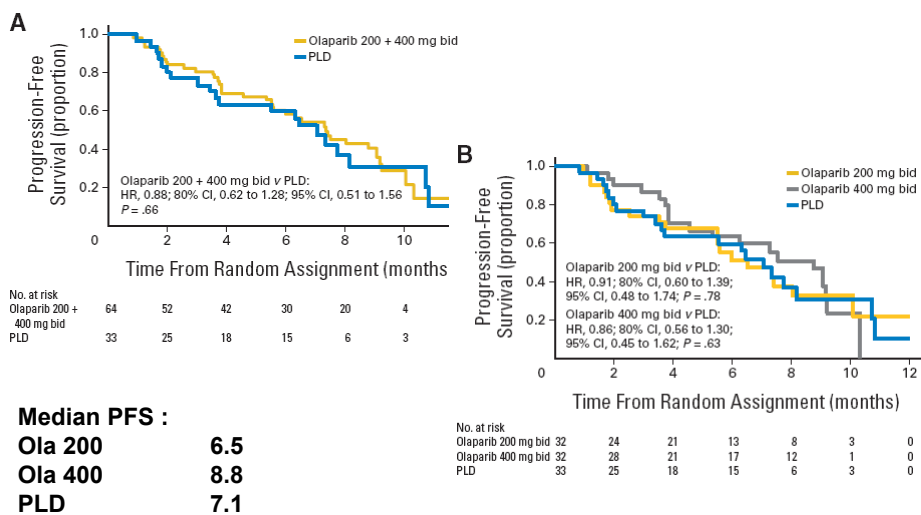


- Objectif principal = SSP
- Objectifs secondaires = TR, SG, tolérance

## Olaparib monothérapie vs doxorubicine liposomale pégylée



## SSP



## Toxicités

**Table 2.** Summary of the Most Commonly Reported AEs by Grade in Each Treatment Arm

AE	Olaparib 200 mg Twice per Day (n = 32)				Olaparib 400 mg Twice per Day (n = 32)				PLD (n = 32)*			
	Grade 1 or 2		Grade 3 or 4		Grade 1 or 2		Grade 3 or 4		Grade 1 or 2		Grade 3 or 4	
	No. of Patients	%	No. of Patients	%	No. of Patients	%	No. of Patients	%	No. of Patients	%	No. of Patients	%
Nausea	18	56	1	3	23	72	2	6	16	50	2	6
Fatigue	12	38	1	3	18	56	3	9	12	38	3	9
Abdominal pain	10	31	2	6	8	25	0	0	10	31	2	6
Vomiting	11	34	0	0	15	47	1	3	9	28	1	3
Constipation	7	22	2	6	5	16	0	0	12	38	0	0
Diarrhea	6	19	0	0	12	38	0	0	8	25	2	6
Asthenia	5	16	1	3	11	34	0	0	3	9	1	3
Urinary tract infection	5	16	0	0	11	34	0	0	3	9	1	3
Anemia	2	6	2	6	6	19	4	13	1	3	0	0
Rash	3	9	0	0	3	9	0	0	11	34	3	9
Palmar-plantar erythrodysesthesia syndrome	0	0	0	0	0	0	0	0	8	25	12	38
Stomatitis	0	0	0	0	0	0	0	0	17	53	2	6

Abbreviations: AE, adverse event; PLD, pegylated liposomal doxorubicin.  
\*One patient was randomly assigned to PLD but did not receive it.

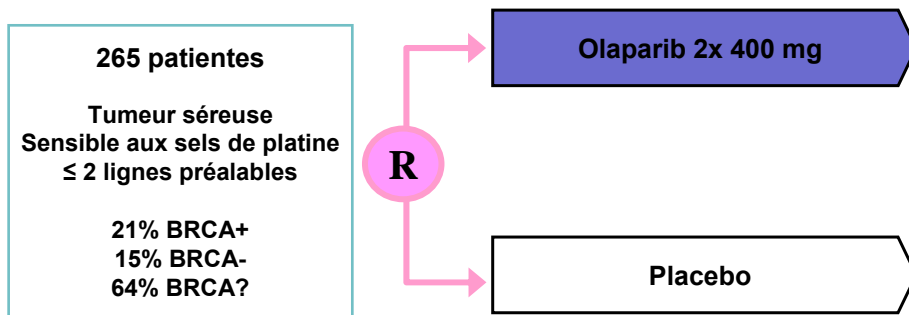
ORIGINAL ARTICLE

## Olaparib Maintenance Therapy in Platinum-Sensitive Relapsed Ovarian Cancer

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Avril 2012

### Phase 2 maintenance



- Objectif principal = SSP
- Objectifs secondaires = SG, TR, tolérance

# PFS

**A**

