



# IMpower132: PFS and Safety Results with 1L Atezolizumab + Carboplatin/Cisplatin + Pemetrexed in Stage IV Non-Squamous NSCLC

Vassiliki A. Papadimitrakopoulou,<sup>1</sup> Manuel Cobo,<sup>2</sup> Rodolfo Bordoni,<sup>3</sup> Pascale Dubray Longeras,<sup>4</sup>  
Zsuzsanna Szalai,<sup>5</sup> Grigoriy Ursol,<sup>6</sup> Silvia Novello,<sup>7</sup> Francisco Orlandi,<sup>8</sup> Simon Ball,<sup>9</sup>  
Jerome Goldschmidt, Jr,<sup>10</sup> Rachel E. Sanborn,<sup>11</sup> Tien Hoang,<sup>12</sup> Diana Mendus,<sup>12</sup> Yu Deng,<sup>12</sup>  
Marcin Kowanetz,<sup>12</sup> Xiaohui Wen,<sup>12</sup> Wei Lin,<sup>12</sup> Alan Sandler,<sup>12</sup> Makoto Nishio<sup>13</sup>

<sup>1</sup>The University of Texas MD Anderson Cancer Center, Houston, TX, USA; <sup>2</sup>Regional University Hospital Málaga, IBIMA, Málaga, Spain;

<sup>3</sup>Northside Hospital Cancer Institute, Marietta, GA, USA; <sup>4</sup>Centre Jean Perrin, Clermont-Ferrand, France;

<sup>5</sup>Petz Aladár County Teaching Hospital, Győr, Hungary; <sup>6</sup>Acinus, Kirovograd, Ukraine; <sup>7</sup>University of Turin, Turin, Italy;

<sup>8</sup>Instituto Nacional del Tórax, Santiago, Chile; <sup>9</sup>Queen's Hospital, Romford, United Kingdom; <sup>10</sup>Blue Ridge Cancer Care, Blacksburg, VA, USA;

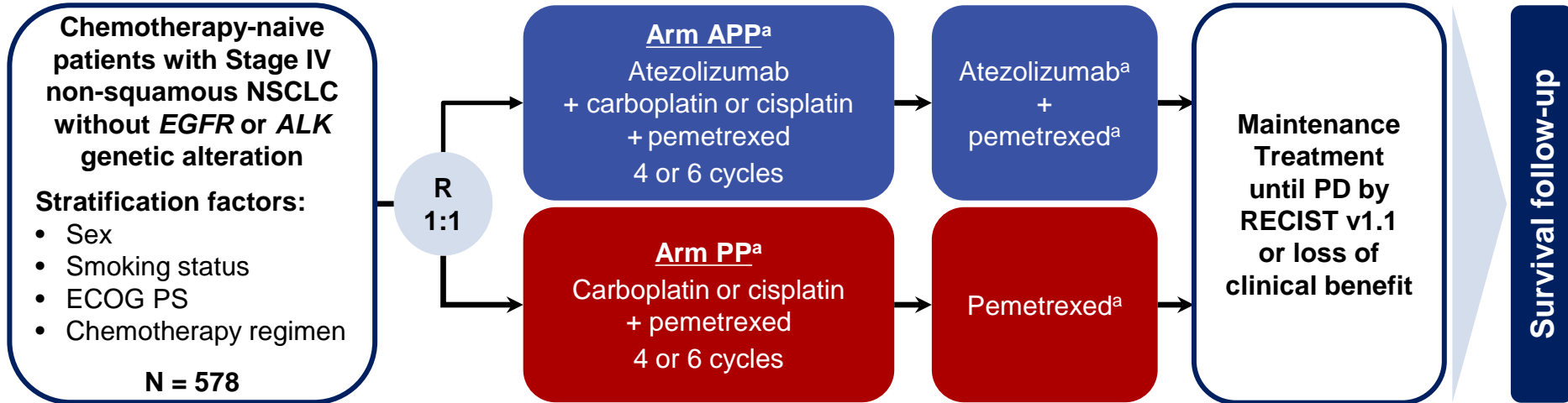
<sup>11</sup>Earle A. Chiles Research Institute, Providence Cancer Institute, Portland, OR, USA; <sup>12</sup>Genentech, Inc., South San Francisco, CA, USA;

<sup>13</sup>The Cancer Institute Hospital, Japanese Foundation for Cancer Research, Tokyo, Japan

# Disclosures

- Dr Vassiliki A. Papadimitrakopoulou has the following to disclose:
  - *Advisory boards for AbbVie, Araxes Pharma LLC, Arrys Therapeutics, AstraZeneca, Bristol-Myers Squibb, Clovis Oncology, Eli Lilly & Co, F. Hoffmann-La Roche, Janssen Research Foundation, LOXO Oncology, Merck & Co., Nektar Therapeutics, Novartis, Takeda Pharmaceuticals, TRM Oncology*
  - *Research support from AstraZeneca, Bristol-Myers Squibb, Checkmate Pharmaceuticals, Eli Lilly & Co, F. Hoffmann-La Roche Ltd., Incyte, Janssen, Merck, Nektar Therapeutics, Novartis*
- This study is sponsored by F. Hoffmann-La Roche, Ltd

# IMpower132 Study Design



- Co-primary endpoints: INV-assessed PFS and OS
- Secondary endpoints: INV-assessed ORR and DOR, PRO and safety measures
- Exploratory analyses: clinical and biomarker subgroup analyses
  - Biomarker-evaluable tissue not mandatory for enrolment (was available from 60% of patients)

PRO, patient-reported outcomes. <sup>a</sup> Atezolizumab: 1200 mg IV q3w; Carboplatin: AUC 6 mg/mL/min IV q3w; Cisplatin: 75 mg/m<sup>2</sup> IV q3w; Pemetrexed: 500 mg/m<sup>2</sup> IV q3w. NCT02657434. Data cutoff: May 22, 2018

# Baseline Characteristics

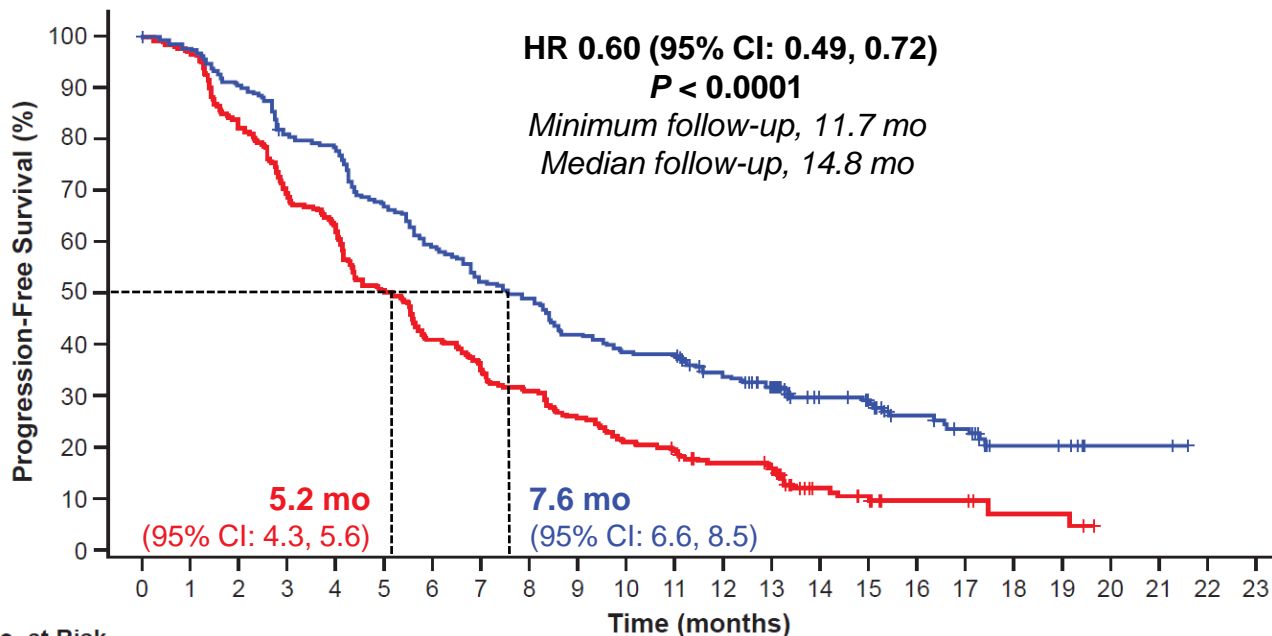
Characteristic	APP (n = 292)	PP (n = 286)
Median age (range), years	64.0 (31-85)	63.0 (33-83)
< 65 years, n (%)	153 (52.4%)	167 (58.4%)
Sex, male, n (%)	192 (65.8%)	192 (67.1%)
Race, n (%) <sup>a</sup>		
White	193 (66.1%)	203 (71.0%)
Asian	71 (24.3%)	65 (22.7%)
ECOG PS 0, n (%) <sup>b</sup>	126 (43.2%)	114 (40.1%)
Carboplatin, n (%)	177 (60.6%)	175 (61.1%)
Intended 4 cycles, n (%)	197 (67.5%)	190 (66.4%)

Characteristic	APP (n = 292)	PP (n = 286)
Smoking status, n (%)		
Current or former	255 (87.3%)	256 (89.5%)
Never	37 (12.7%)	30 (10.5%)
Liver metastases, n (%)	37 (12.7%)	36 (12.6%)
PD-L1 expression, n (%) <sup>c</sup>	n = 176	n = 168
Negative	88 (50.0%)	75 (44.6%)
Positive	88 (50.0%)	93 (55.4%)
PD-L1–low	63 (35.8%)	73 (43.5%)
PD-L1–high	25 (14.2%)	20 (11.9%)

APP, atezolizumab + carboplatin/cisplatin + pemetrexed; PP, carboplatin/cisplatin + pemetrexed.

<sup>a</sup> American Indian or Alaska Native race (n = 2), Black or African American (n = 6) and Unknown race (n = 38) not included in table. <sup>b</sup> 2 patients had missing baseline ECOG PS. <sup>c</sup> PD-L1 status available in 60% of patients. PD-L1–high (TC3/IC3): patients with PD-L1 expression in ≥50% of tumor cells or ≥10% of tumor-infiltrating immune cells; PD-L1–low (TC12/IC12): patients with PD-L1 expression in ≥1% and <50% of tumor cells or ≥1% and <10% of tumor-infiltrating immune cells; and PD-L1–negative (TC0/IC0): patients with PD-L1 expression in <1% of tumor cells and <1% of tumor-infiltrating immune cells.

# Final Investigator-Assessed PFS, ORR and DOR



## No. at Risk

Time (months)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
APP	292	280	260	231	224	191	169	149	140	120	110	109	88	74	48	43	31	26	11	10	2	2		
PP	286	273	236	195	178	142	115	98	87	72	59	53	44	39	15	11	6	6	3	3				

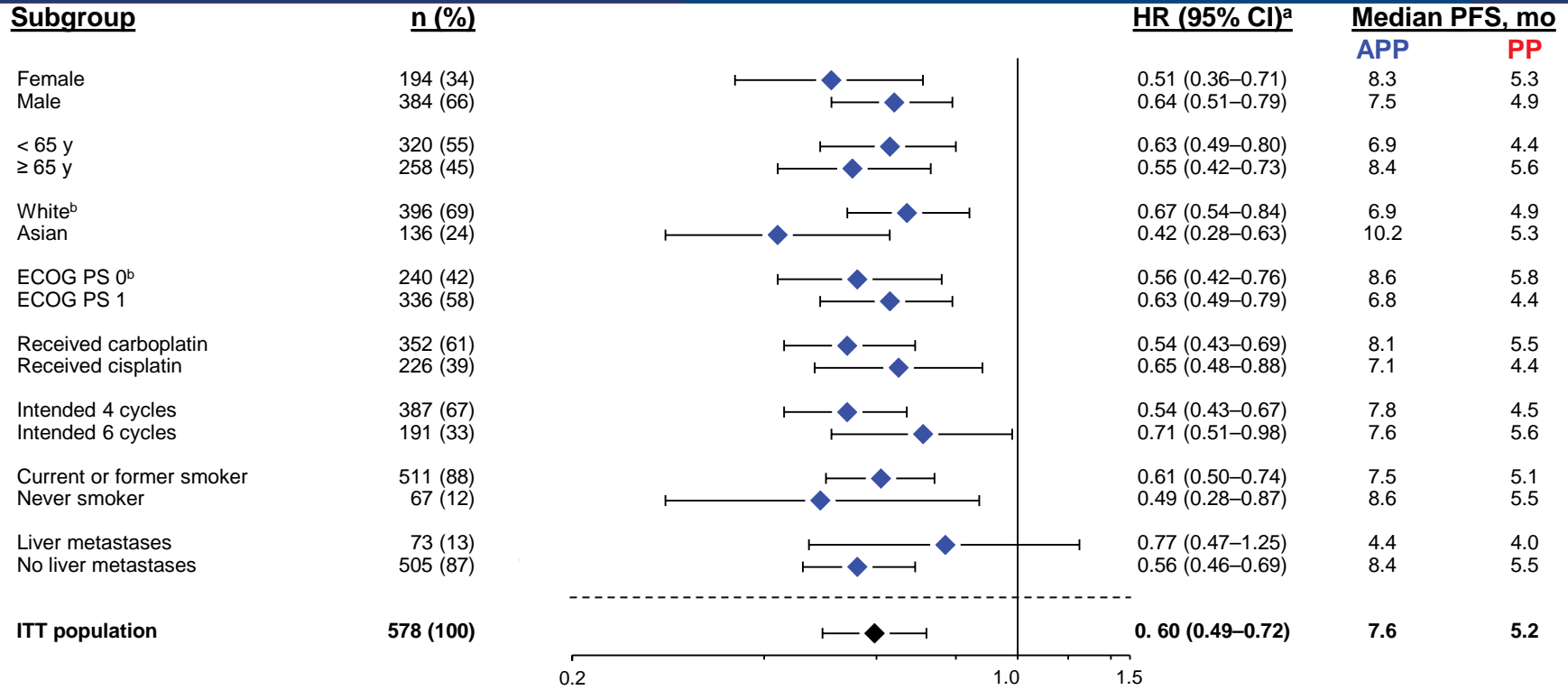
APP, atezolizumab + carboplatin/cisplatin + pemetrexed; CR, complete response; DOR, duration of response; HR, hazard ratio; IRF, independent review facility; ORR, objective response rate; PP, carboplatin/cisplatin + pemetrexed; PR, partial response.

IRF-assessed median PFS was 7.2 mo with APP and 6.6 mo with PP (stratified HR: 0.758 [95% CI: 0.623, 0.923]  $P = 0.055$ )

Data cutoff: May 22, 2018.

	APP	PP
6-mo PFS	59.1%	40.9%
12-mo PFS	33.7%	17.0%
ORR, %	47%	32%
CR	2%	1%
PR	45%	32%
Median DOR, mo	10.1	7.2
Ongoing response, %	42%	30%

# PFS in Key Patient Subgroups

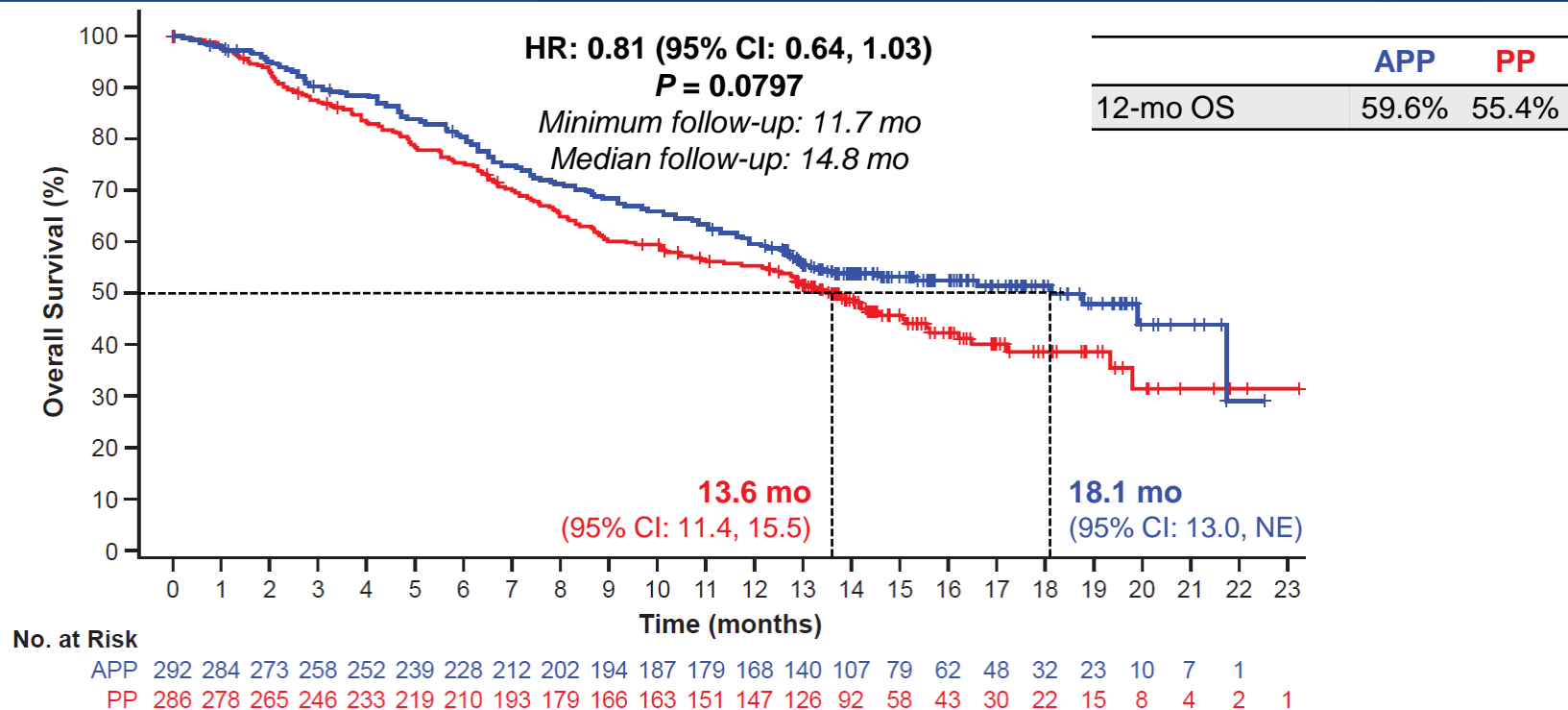


APP, atezolizumab + carboplatin/cisplatin + pemetrexed; PP, carboplatin/cisplatin + pemetrexed.

<sup>a</sup> Stratified HR for ITT; unstratified for all other subgroups. <sup>b</sup> Patients with other/unknown race (n = 46) and unknown baseline ECOG PS (n = 2) not included. Data cutoff: May 22, 2018.

**Hazard Ratio<sup>a</sup>**  
 ← Favours APP Favours PP →

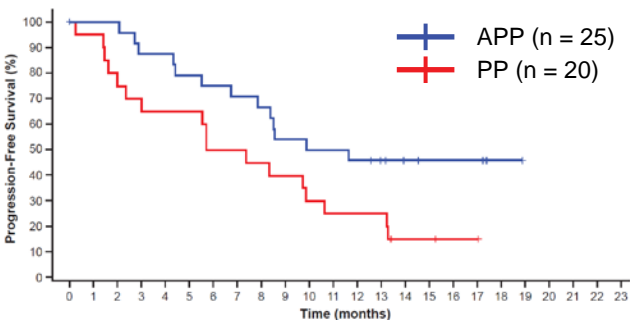
# Interim OS Analysis



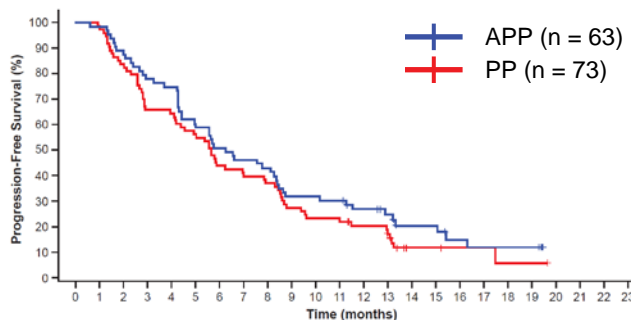
APP, atezolizumab + carboplatin/cisplatin + pemetrexed; PP, carboplatin/cisplatin + pemetrexed.  
 Data cutoff: May 22, 2018. Frequency of OS events: 44% and 49% in arms APP and PP respectively.

# Exploratory Analysis: PFS by PD-L1 Status in Biomarker-Evaluable Patients<sup>a</sup>

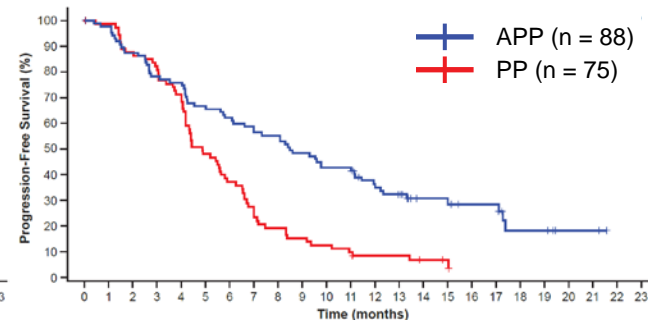
**PD-L1 High**  
TC3 or IC3



**PD-L1 Low**  
TC1/2 or IC1/2



**PD-L1 Negative**  
TC0 and IC0



	APP	PP		APP	PP		APP	PP
<b>ORR, %</b>	72%	55%		38%	38%		44%	27%
<b>CR   PR, %</b>	0   72%	5%   50%		2%   37%	0   38%		2%   42%	0   27%
<b>Median DOR, mo</b>	NE	7.2		7.2	7.2		10.1	4.2
<b>12-month PFS</b>	46%	25%		27%	20%		35%	8%
<b>Median PFS, mo</b>	10.8	6.5		6.2	5.7		8.5	4.9
<b>HR<sup>b</sup> (95% CI)</b>	0.46 (0.22, 0.96)			0.80 (0.56, 1.16)			0.45 (0.31, 0.64)	

APP, atezolizumab + carboplatin/cisplatin + pemetrexed; PP, carboplatin/cisplatin + pemetrexed.

<sup>a</sup> Overall HR 0.57 (0.45, 0.73) in biomarker-evaluable patients (60% of ITT). <sup>b</sup> Unstratified HR. Data cutoff: May 22, 2018.



# Subsequent Cancer Therapies

	APP (n = 292)	PP (n = 286)
Total no. of patients with ≥ 1 treatment, n (%)	94 (32.2%)	148 (51.7%)
No. of patients with ≥ 1 immunotherapy treatment, n (%)	8 (2.7%)	106 (37.1%)
No. of treatments by immunotherapy agent, n	10	117
Nivolumab, n (%)	4 (1.4%)	64 (22.4%)
Pembrolizumab, n (%)	0	27 (9.4%)
Atezolizumab, n (%)	2 (0.7%)	10 (3.5%)
Durvalumab, n (%)	0	3 (1.0%)
Daratumumab, n (%)	0	2 (0.7%)
Other immunotherapy agents, n (%) <sup>a</sup>	4 (1.4%)	7 (2.6%)
No. of patients with ≥ 1 chemotherapy, n (%)	86 (29.5%)	71 (24.8%)
No. of patients with ≥ 1 targeted therapy, n (%)	36 (12.3%)	36 (12.6%)
No. of treatments with anti-angiogenic agents, n (%) <sup>b</sup>	33 (11.3%)	29 (10.1%)

APP, atezolizumab + carboplatin/cisplatin + pemetrexed; PP, carboplatin/cisplatin + pemetrexed.  
<sup>a</sup> n = 1 for each treatment. <sup>b</sup> Anti-angiogenic agents used: bevacizumab, nintedanib, ramucirumab.  
 Data cutoff: May 22, 2018.

# Safety Summary

	APP (n = 291)	PP (n = 274)
<b>All-cause AEs, n (%)</b>	286 (98%)	266 (97%)
Grade 3-4	181 (62%)	147 (54%)
Grade 5	21 (7%)	14 (5%)
<b>TRAEs, n (%)</b>	267 (92%)	239 (87%)
Grade 3-4	156 (54%)	107 (39%)
Grade 5	11 (4%)	7 (3%)
<b>SAEs, n (%)</b>	134 (46%)	84 (31%)
Tx-related SAEs	96 (33%)	43 (16%)
<b>AEs leading to withdrawal, n (%)</b>		
Of any treatment	69 (24%)	48 (18%)
Of atezolizumab	44 (15%)	0
<b>AESI, n (%)</b>	141 (49%)	104 (38%)

	APP (n = 291)		PP (n = 274)	
<b>AEs of Special Interest, n (%)</b>	All Grade	Grade 3-4	All Grade	Grade 3-4
Rash	71 (24%)	9 (3%)	58 (21%)	5 (2%)
Hypothyroidism	23 (8%)	1 (<1%)	6 (2%)	0
Pneumonitis	16 (6%)	6 (2%) <sup>a</sup>	6 (2%)	3 (1%) <sup>a</sup>
Hepatitis (Diagnosis)	13 (5%)	7 (2%) <sup>a</sup>	2 (1%)	0
Infusion-Related Reactions	8 (3%)	1 (<1%)	2 (1%)	1 (<1%)
Hyperthyroidism	6 (2%)	1 (<1%)	3 (1%)	0
Severe Cutaneous Adverse Reaction	4 (1%)	2 (1%)	2 (1%)	0
Pancreatitis	4 (1%)	1 (<1%)	2 (1%)	2 (1%)
Colitis	5 (2%)	2 (1%)	0	0

- PRO data also support the positive benefit-risk profile demonstrated by these clinical data

APP, atezolizumab + carboplatin/cisplatin + pemetrexed; AE, adverse event; AESI, adverse event of special interest; PP, carboplatin/cisplatin + pemetrexed; SAE, serious adverse event; TRAE, treatment-related adverse event.<sup>a</sup> Grade 5 event observed. Data cutoff: May 22, 2018.

# Conclusions

- IMpower132 met its co-primary endpoint of investigator-assessed PFS in the ITT population
- The addition of atezolizumab to carboplatin/cisplatin + pemetrexed improved median PFS in the ITT population (7.6 mo vs 5.2 mo, HR 0.60) and across key clinical subgroups
- Atezolizumab + pemetrexed + carboplatin or cisplatin has a manageable safety profile consistent with known safety risks of the individual therapies; no new safety signals were identified
- OS data showed a numerical improvement of 4.5 months at this interim analysis; final analysis is anticipated in 1H 2019

# Acknowledgements

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