



## Phase 3 COLUMBUS Part 2 Results in BRAF-Mutant Melanoma Presented at European Society for Medical Oncology Congress

September 9, 2017

- Median PFS for patients on combination of binimetinib (45 mg) plus encorafenib (300 mg) was 12.9 months versus 9.2 months for patients on encorafenib (300 mg) -
- Generally well-tolerated and safety profile consistent with COLUMBUS Part 1 results -
- New Drug Applications (NDAs) were submitted to the FDA and Marketing Authorization Applications (MAAs) are under review with the EMA for binimetinib and encorafenib in BRAF-mutant advanced melanoma -

BOULDER, Colo., Sept. 9, 2017 /PRNewswire/ -- Array BioPharma (Nasdaq: ARRY) and Pierre Fabre today announced results from Part 2 of the Phase 3 COLUMBUS study evaluating binimetinib, a MEK inhibitor, and encorafenib, a BRAF inhibitor, in patients with *BRAF*-mutant advanced, unresectable or metastatic melanoma. The primary analysis of Part 2 compared progression free survival (PFS) in patients treated with binimetinib 45 mg twice daily plus encorafenib 300 mg daily (COMBO300) to patients treated with encorafenib 300 mg daily as a single agent. Part 2 of the study was designed specifically to measure the contribution of binimetinib to the combination by holding the dose of encorafenib at 300 mg in both arms.

The median PFS for patients treated with COMBO300 was 12.9 months compared to 9.2 months for patients treated with single agent encorafenib, with HR of 0.77 [95% CI 0.61-0.97, p=0.029]. As part of the trial design, the analysis was based on a Blinded Independent Central Review (BICR) of patient scans, while results by local review at the investigative site were also analyzed. COMBO300 was generally well-tolerated and reported dose intensity and adverse events were consistent with binimetinib 45 mg twice daily plus encorafenib 450 mg daily (COMBO450) results in COLUMBUS Part 1. Grade 3/4 adverse events (AEs) that occurred in 5% or more of patients receiving COMBO300 were increased gamma-glutamyltransferase (GGT) (5%), increased blood creatine phosphokinase (CK) (5%) and increased alanine aminotransferase (ALT) (5%). The incidence of selected any grade AEs of special interest, defined based on toxicities commonly associated with commercially available MEK+BRAF-inhibitor treatments for patients receiving COMBO300 included: pyrexia (17%), rash (15%), retinal pigment epithelial detachment (9%) and photosensitivity (2%). Full safety results of COLUMBUS Part 2 were presented at the 2017 ESMO Congress.

"The totality of the COLUMBUS results, across Part 1 and 2, including median PFS, objective response rate, dose intensity and tolerability of the combination, provide a strong and consistent theme across multiple endpoints, underscoring the promise of binimetinib plus encorafenib as an attractive treatment option for patients diagnosed with *BRAF*-mutant melanoma," said Keith T. Flaherty, M.D., Director of the Termeer Center for Targeted Therapy, Massachusetts General Hospital and Professor of Medicine, Harvard Medical School.

Reinhard Dummer, M.D., investigator, University Hospital Zurich, noted: "Results from COLUMBUS Part 2 clearly demonstrated the contribution of MEK to the combination and suggest that the robust activity seen with COMBO450 in COLUMBUS Part 1 may be related to the ability to increase the dose of encorafenib."

On July 5, 2017, Array announced that it submitted two NDAs to the FDA to support use of the combination of binimetinib 45 mg twice daily and encorafenib 450 mg once daily (COMBO450) for the treatment of patients with BRAF-mutant advanced, unresectable or metastatic melanoma. Array completed its NDA submissions based on findings from the pivotal Phase 3 COLUMBUS trial. In addition, Array's European partner, Pierre Fabre, announced on August 28, 2017, that the European Medicines Agency has validated the review of the MAAs for binimetinib and encorafenib.

### COLUMBUS Results

As presented at the 2016 Society for Melanoma Research Annual Congress, results from Part 1 of the COLUMBUS study showed that COMBO450 significantly extended PFS in patients with advanced *BRAF*-mutant melanoma, with a PFS of 14.9 months compared with 7.3 months observed with vemurafenib [hazard ratio (HR) 0.54, (95% CI 0.41-0.71, P<0.001)]. As part of the trial design, the primary analysis was based on a BICR of patient scans, while results by local review at the investigative site were also analyzed. The table below outlines the median PFS (mPFS) results, as determined by both assessments, for COMBO450 versus vemurafenib, COMBO450 versus encorafenib, and encorafenib versus vemurafenib:

	mPFS BICR		mPFS Local Review	
<b>COMBO450 vs. Vemurafenib</b>	<b>COMBO450</b>	<b>Vemurafenib</b>	<b>COMBO450</b>	<b>Vemurafenib</b>
	14.9 months	7.3 months	14.8 months	7.3 months
	HR (95% CI): 0.54 (0.41-0.71); P<0.001		HR (95% CI): 0.49 (0.37-0.64); P<0.001	
<b>COMBO450 vs. Encorafenib</b>	<b>COMBO450</b>	<b>Encorafenib</b>	<b>COMBO450</b>	<b>Encorafenib</b>
	14.9 months	9.6 months	14.8 months	9.2 months
	HR (95% CI): 0.75 (0.56-1.00); P=0.051		HR (95% CI): 0.68 (0.52-0.90); P=0.006	
<b>Encorafenib vs. Vemurafenib</b>	<b>Encorafenib</b>	<b>Vemurafenib</b>	<b>Encorafenib</b>	<b>Vemurafenib</b>
	9.6 months	7.3 months	9.2 months	7.3 months
	HR (95% CI): 0.68 (0.52-0.90); P=0.007		HR (95% CI): 0.70 (0.54-0.91); P=0.008	

In this study, COMBO450 was generally well-tolerated, with a median duration of treatment of 51 weeks and median relative dose intensity for encorafenib and binimetinib of 100% and 99.6%, respectively. Grade 3/4 AEs that occurred in more than 5% of patients receiving COMBO450 were increased GGT (9%), increased blood CK (7%) and hypertension (6%). The incidence of selected any grade AEs of special interest, defined based on toxicities commonly associated with commercially available MEK+BRAF-inhibitor treatments for patients receiving COMBO450 included: rash (23%), pyrexia (18%), retinal pigment epithelial detachment (13%) and photosensitivity (5%). Full safety results of COLUMBUS Part 1 were presented at the 2016 Society for Melanoma Research Annual Congress.

COLUMBUS Part 2 was designed specifically to assess the contribution of binimetinib to the combination of binimetinib and encorafenib by reducing the dose of encorafenib to 300 mg in the combination arm to allow for a comparison of equal doses across arms. In COLUMBUS Part 2, the primary analysis compared PFS in patients treated with COMBO300 to patients treated with encorafenib 300 mg daily as a single agent.

#### **About the Phase 3 COLUMBUS Study**

The COLUMBUS trial, (NCT01909453), is a two-part, international, randomized, open label Phase 3 study evaluating the efficacy and safety of the combination of binimetinib plus encorafenib to vemurafenib and to encorafenib monotherapy in 921 patients with locally advanced, unresectable or metastatic melanoma with *BRAF*<sup>V600</sup> mutation. Prior immunotherapy treatment was allowed. Over 200 sites across North America, Europe, South America, Africa, Asia and Australia participated in the study. Patients were randomized into two parts:

- In Part 1, 577 patients were randomized 1:1:1 to receive COMBO450, 300 mg encorafenib alone, or 960 mg vemurafenib alone. The dose of encorafenib in the combination arm is 50% higher than the single agent maximum tolerated dose of 300 mg. A higher dose of encorafenib was possible due to improved tolerability when combined with binimetinib. The primary endpoint for the COLUMBUS trial was a PFS comparison of COMBO450 versus vemurafenib. PFS is determined based on tumor assessment (RECIST version 1.1 criteria) by a BICR. Secondary endpoints include a comparison of the PFS of encorafenib monotherapy to that of COMBO450 and a comparison of overall survival (OS) for COMBO450 to that of vemurafenib alone.
- In Part 2, 344 patients were randomized 3:1 to receive COMBO300 or 300 mg encorafenib alone. Part 2 was designed to provide additional data to help evaluate the contribution of binimetinib to the combination of binimetinib and encorafenib. As the comparison of COMBO450 to encorafenib in Part 1 did not achieve statistical significance, analyses of other endpoints including the statistical analysis conducted in Part 2 is descriptive.

#### **About Melanoma**

Metastatic melanoma is the most serious and life-threatening type of skin cancer and is associated with low survival rates[1],[2]. There are about 200,000 new cases of melanoma diagnosed worldwide each year, approximately half of which have *BRAF* mutations, a key target in the treatment of metastatic melanoma[1],[3],[4].

#### **About Binimetinib and Encorafenib**

MEK and BRAF are key protein kinases in the MAPK signaling pathway (RAS-RAF-MEK-ERK). Research has shown this pathway regulates several key cellular activities including proliferation, differentiation, survival and angiogenesis. Inappropriate activation of proteins in this pathway has been shown to occur in many cancers, such as melanoma, colorectal and thyroid cancers. Binimetinib is a late-stage small molecule MEK inhibitor and encorafenib is a late-stage small molecule BRAF inhibitor, both of which target key enzymes in this pathway. Binimetinib and encorafenib are being studied in clinical trials in advanced cancer patients, including the Phase 3 BEACON CRC trial with encorafenib in combination with cetuximab with or without binimetinib in patients with *BRAF*<sup>V600E</sup>-mutant colorectal cancer.

Binimetinib and encorafenib are investigational medicines and are not currently approved in any country.

Array BioPharma retains exclusive rights to binimetinib and encorafenib in key markets including the U.S., Canada and Israel. Array has granted Ono Pharmaceutical exclusive rights to commercialize both products in Japan and South Korea and Pierre Fabre exclusive rights to commercialize both products in all other countries, including Europe, Asia and Latin America.

#### **About Array BioPharma**

Array BioPharma Inc. is a biopharmaceutical company focused on the discovery, development and commercialization of targeted small molecule drugs to treat patients afflicted with cancer. Eight registration studies are currently advancing related to seven Array-owned or partnered drugs: binimetinib (MEK162), encorafenib (LGX818), selumetinib (partnered with AstraZeneca), danoprevir (partnered with Roche), ipatasertib (partnered with Genentech), larotrectinib (partnered with Loxo Oncology) and tucatinib (partnered with Cascadian Therapeutics).

#### **About Pierre Fabre**

With a portfolio representing a continuum of activities spanning from prescription drugs and consumer healthcare products to dermo-cosmetics, Pierre Fabre is the 2nd largest dermo-cosmetics laboratory in the world, the 2nd largest private French pharmaceutical group and the market leader in France for products sold over the counter in pharmacies. Its portfolio includes several global brands and franchises among which Eau Thermale Avène - the worldwide dermo-cosmetic market leader - Klorane, Ducray, René Furterer, A-Derma, Galénic, Elancyl, Naturactive, Pierre Fabre Health Care, Pierre Fabre Oral Care, Pierre Fabre Dermatologie and Pierre Fabre Oncologie.

In 2016, Pierre Fabre generated 2,282 million euros in revenues, of which 60% came from its international business and 59% from its dermo-cosmetics division. Pierre Fabre, which has always been headquartered in the South-West of France, counts more than 13,000 employees worldwide, owns subsidiaries and offices in 47 countries and enjoys distribution agreements in over 130 countries. In 2016, Pierre Fabre dedicated ca. 195 million euros to its R&D efforts, split between oncology, central nervous system, consumer healthcare, dermatology and dermo-cosmetics.

Pierre Fabre is 86%-owned by the Pierre Fabre Foundation, a government-recognized public-interest foundation, and secondarily by its own employees through an international employee stock ownership plan.

The independent French certification group AFNOR audited Pierre Fabre for its corporate social responsibility policy at the "exemplary" level, according to the ISO 26000 standard for CSR.

To find out more about Pierre Fabre, please go to [www.pierre-fabre.com](http://www.pierre-fabre.com)

#### **References**

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[3] Globocan 2012: Estimated Cancer Incidence, Mortality and Prevalence Worldwide in 2012. [http://globocan.iarc.fr/Pages/fact\\_sheets\\_population.aspx](http://globocan.iarc.fr/Pages/fact_sheets_population.aspx) (link is external). Accessed June 2017.

[4] Klein O, et al. (2013) BRAF inhibitor activity in V600R metastatic melanoma. *Eur J Cancer*. 49(5):1073-1079.

#### Array BioPharma Forward-Looking Statement

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements about the future development plans of binimetinib and encorafenib; expectations regarding the timing of regulatory filings for binimetinib and encorafenib and regarding approval of binimetinib and encorafenib for *BRAF*-mutant melanoma; expectations that events will occur that will result in greater value for Array; and the potential for the results of current and further clinical trials to support regulatory approval or the marketing success of binimetinib and encorafenib. Specifically, there is no assurance that results from the COLUMBUS study, including Parts 1 and 2, will satisfy the requirements of regulatory authorities necessary to obtain for marketing approval in the United States or other markets. These statements involve significant risks and uncertainties, including those discussed in our most recent annual report filed on Form 10-K, in our quarterly reports filed on Form 10-Q, and in other reports filed by Array with the Securities and Exchange Commission. Because these statements reflect our current expectations concerning future events, our actual results could differ materially from those anticipated in these forward-looking statements as a result of many factors. These factors include, but are not limited to, the determination by the FDA, EMA or other regulatory agencies that results from clinical trials are not sufficient to support registration or marketing approval of binimetinib and encorafenib; our ability to effectively and timely conduct clinical trials in light of increasing costs and difficulties in locating appropriate trial sites and in enrolling patients who meet the criteria for certain clinical trials; risks associated with our dependence on third-party service providers to successfully conduct clinical trials and to manufacture drug substance and product within and outside the United States; our ability to grow and successfully develop commercialization capabilities; our ability to achieve and maintain profitability and maintain sufficient cash resources; and our ability to attract and retain experienced scientists and management. We are providing this information as of September 9, 2017. We undertake no duty to update any forward-looking statements to reflect the occurrence of events or circumstances after the date of such statements or of anticipated or unanticipated events that alter any assumptions underlying such statements.

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