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**Fully Human Anti-PD-1 Antibody “Nivolumab (ONO-4538/BMS-936558)”  
Updated Results from a Phase 1 Study in Patients with NSCLC  
Presented at 15<sup>th</sup> World Conference on Lung Cancer**

Bristol-Myers Squibb Company (“BMJ”) announced updated results from Phase 1 study in patients with NSCLC will be presented at the 15<sup>th</sup> World Conference on Lung Cancer, on October 25<sup>th</sup> (US time).

Nivolumab, a fully human PD-1 immune checkpoint inhibitor antibody, is an investigational cancer immunotherapy generated under a research collaboration entered into in May 2005 between Ono Pharmaceutical Co., Ltd. (“Ono”) and Medarex, Inc. When Medarex, Inc. was acquired by Bristol-Myers Squibb in 2009, Bristol-Myers Squibb succeeded its rights to develop and commercialize Nivolumab in North America. Through the strategic license agreement entered into in September 2011 between Ono and Bristol-Myers Squibb, Ono granted Bristol-Myers Squibb exclusive rights to develop and commercialize Nivolumab in the rest of the world, except in Japan, Korea and Taiwan where Ono retained all rights to develop and commercialize the compound.

BMJ is conducting Phase 3 studies in NSCLC, RCC and melanoma in the overseas countries, Phase 1 studies in HCV, Hematologic Malignancy and Hepatocellular Carcinoma. And BMJ started Phase 1/2 study in Triple Negative Breast Cancer, Gastric Cancer, Pancreatic Cancer and Small Cell Lung Cancer. On the other hand, in Japan, Ono is conducting Phase 2 studies in NSCLC and melanoma and a Phase 3 study in RCC.

Attached from the following page is the press release made by BMJ for your information.

**Additional Survival Data on Nivolumab, an Investigational PD-1 Immune Checkpoint Inhibitor, from Lung Cancer Cohort of a Phase 1 Study Presented at 15<sup>th</sup> World Conference on Lung Cancer**

- *Across dose cohorts, 42% and 24% of heavily pre-treated patients with non-small cell lung cancer were alive at one and two years, respectively, based on Kaplan-Meier estimates*
- *Spectrum, frequency and severity of treatment-related adverse events were consistent with those initially reported*
- *Development program consists of more than 25 studies in broad range of tumors, including seven potentially registrational trials in lung cancer, melanoma and renal cell carcinoma*

(PRINCETON, NJ, October 25, 2013) – [Bristol-Myers Squibb Company](#) (NYSE: BMY) today announced long-term follow-up results (median follow up of 20.3 months) from the lung cancer cohort (n=129) of the expanded Phase 1 dose-ranging study (003) of nivolumab, an investigational PD-1 immune checkpoint inhibitor. Results showed sustained activity in heavily pre-treated patients with non-small-cell lung cancer (NSCLC) as defined by one- and two-year survival rates of 42% and 24%, respectively, across dose cohorts. These data, which are based on Kaplan-Meier estimates, will be presented on October 29 at the World Conference on Lung Cancer (Abstract # MO18.03).

“Our goal with immuno-oncology is to change survival expectations and the way patients live with cancer,” said Michael Giordano, senior vice president, Head of Development, Oncology & Immunology, Bristol-Myers Squibb. “These are encouraging Phase 1 results from the expanded cohort of patients with lung cancer, the leading cause of cancer deaths globally, and we are seeking to confirm these early data in ongoing Phase 3 trials.”

“Lung cancer is very difficult to treat and there continues to be a high unmet medical need for these patients, especially those who have received multiple treatments,” added Dr. David Spigel, program director of Lung Cancer at Sarah Cannon Research Institute and Study 003 investigator. “With nivolumab, we are investigating an approach to treating lung cancer that is designed to work with the body’s own immune system, and these are encouraging Phase 1 results that support further investigation in larger scale trials.”

### **Study 003 Results**

This analysis is reflective of 129 NSCLC patients, including both squamous and non-squamous histologies. All patients had at least one therapy prior to nivolumab and 54% received three or more therapies prior to nivolumab. Across dose cohorts, the one- and two-year survival rates were 42% and 24%, respectively, based on Kaplan-Meier estimates, and median overall survival (mOS) was 9.9 months. In all treated patients, the objective response rate (ORR) was 17%, as measured by RECIST criteria. An analysis of the 129 NSCLC patients in this study by select patient characteristics demonstrated that nivolumab had activity across a broad range of patients, including those with mutations in key signaling pathways in lung cancer such as EGFR and KRAS.

Data presented at the 2013 American Society of Clinical Oncology (ASCO) annual meeting, with all patients having greater than or equal to one year of follow up, demonstrated a spectrum, frequency and severity of treatment-related adverse events (AEs) that were consistent with those initially reported in the study in 2012. As reported at ASCO 2013, common drug-related AEs included fatigue, decreased appetite, diarrhea, nausea, constipation, cough and dyspnea. Drug-related select AEs with potential immunologic etiologies, defined as adverse events that may require more frequent monitoring and/or unique intervention, included rash, diarrhea and pruritus.

### **About Study 003**

Study 003 is a Phase 1 study (n=306) evaluating the safety, antitumor activity and pharmacokinetics of nivolumab in patients with NSCLC (n=129), advanced melanoma (n=107), renal cell carcinoma (n=34), castration-resistant prostate cancer (n=17) and colorectal cancer (n=19). Based on an amendment to the protocol, patients were followed-up for survival.

Eligible patients were administered nivolumab as an intravenous infusion every 2 weeks of each 8-week treatment cycle. Cohorts of three to six patients per dose level (0.1, 0.3, 1.0, 3.0 or 10 mg/kg) were enrolled sequentially. Patients continued treatment  $\leq 2$  years (maximum of 12 cycles; 4 doses per 8-week cycle), unless they experienced complete response, unacceptable toxicity, progressive disease or withdrew consent. In clinically stable patients, treatment could be continued beyond apparent initial disease progression until confirmed progression, as defined by proposed immune response criteria. Patients with stable disease or an ongoing objective response

(OR) at the completion of treatment were followed for  $\leq 1$  year and offered retreatment for one additional year if their disease progressed. OR was defined as complete or partial response.

### **About Nivolumab**

Cancer cells may exploit “regulator” pathways, such as checkpoint pathways, to hide from the immune system and shield the tumor against immune attack. Nivolumab is an investigational, fully-human IgG4 PD-1 immune checkpoint inhibitor that binds to the checkpoint receptor PD-1 (programmed death-1) expressed on activated T-cells. Nivolumab inhibits the binding of PD-1 with its tumor-expressed ligands, programmed death-ligand 1 (PD-L1/B7-H1) and PD-L2 (B7-DC). Blocking of the interaction of the PD-1 receptor with its ligands may allow T-cells to restore an anti-tumor immune response.

The development program for nivolumab consists of more than 25 studies – as monotherapy or in combination with other therapies – in multiple tumors types, including: NSCLC, small cell lung cancer, melanoma, renal cell carcinoma, hepatocellular carcinoma, hematological cancers, triple negative breast cancer, gastric cancer and pancreatic cancer. Among these are seven potentially registrational trials in NSCLC, melanoma and renal cell carcinoma.

### **About Lung Cancer**

Lung cancer is the leading cause of cancer deaths globally, resulting in more than 1.3 million deaths each year according the World Health Organization. NSCLC is one of the most common types of the disease and accounts for approximately 85 percent of cases.

### **About the Bristol-Myers Squibb and Ono Pharmaceutical Partnership**

Bristol-Myers Squibb attained rights to nivolumab through its acquisition of Medarex in 2009. Through a collaboration agreement with Ono Pharmaceutical in 2011, Bristol-Myers Squibb expanded its territorial rights to develop and commercialize nivolumab (BMS-936558/ONO-4538) globally except in Japan, Korea and Taiwan where Ono has retained all rights to the compound.

### **About Bristol-Myers Squibb**

Bristol-Myers Squibb is a global biopharmaceutical company whose mission is to discover, develop and deliver innovative medicines that help patients prevail over serious

diseases. For more information, please visit <http://www.bms.com/> or follow us on Twitter at <http://twitter.com/bmsnews>.

### **Bristol-Myers Squibb Forward-Looking Statement**

*This press release contains "forward-looking statements" as that term is defined in the Private Securities Litigation Reform Act of 1995 regarding product development. Such forward-looking statements are based on current expectations and involve inherent risks and uncertainties, including factors that could delay, divert or change any of them, and could cause actual outcomes and results to differ materially from current expectations. No forward-looking statement can be guaranteed. Among other risks, there can be no guarantee that the clinical trials of this compound will support regulatory filings, or that the compound will receive regulatory approvals or, if approved, that it will become a commercially successful product. Forward-looking statements in this press release should be evaluated together with the many uncertainties that affect Bristol-Myers Squibb's business, particularly those identified in the cautionary factors discussion in Bristol-Myers Squibb's Annual Report on Form 10-K for the year ended December 31, 2012, in our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K. Bristol-Myers Squibb undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.*

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