**Roche: MPDL3280A (Phase I) Has Broader Efficacy and Potentially Better Safety Than BMS' Nivolumab; Pivotal Studies in NSCLC Initiated**

Data for Roche's anti-PDL1 antibody MPDL328A look so far broadly comparable to Nivolumab when comparing headline response rates across tumors, though higher responses rates may still emerge with longer follow up. MPDL3280A has also shown responses in more tumor types than nivolumab, and continues to show better safety (no cases of grade 3-5 pneumonitis). Roche has announced it will initiate pivotal studies for MPDL3280A in lung cancer.

**MPDL3280A has broader efficacy and potentially better safety than BMS' nivolumab:** the overall response rate of 21% across all tumor types seen so far for MPDL3280A seems in-line with what has been reported for BMS' nivolumab last year (21%), **though the Roche data is less mature which could be important in view of late responses that kick in only after a period of stable disease in some patient**. Also BMS's nivolumab dataset consisted only of 3 tumor types (RCC, Melanoma, Lung cancer), compared to Roche's sample that evaluated many different tumor types. **Roche has seen responses in colorectal cancer, gastric cancer and Head & Neck cancer, as well as activity in patients with sarcoma and lymphoma. (Abstract 3622)**

**Data on PDL1-expression based companion diagnostics still mixed:** Patients who were diagnosed positive for PDL1 expression based on an investigational diagnostic showed a 36% response rate, but surprisingly patients who tested negative also showed a 13% response rate. In our view, the most likely explanation for this finding is that the Diagnostic is not yet sensitive enough and that responders that had tested negative for PDL1 expression probably represented false negatives. **To us, a companion diagnostic is key for further pivotal studies, and we expect this to be a key focus point of discussion at ASCO.**

**MPDL3280A by tumor type:**

- **MPDL3280A in Renal Cancer** showed a response rate of 13% which seems low vs. the 29% shown by nivolumab last year (29% in the updated analysis in yesterday's abstract), thought the Roche data is not yet mature. (Updated analysis for MPDL3280A in renal cancer will be presented at the meeting.) PFS at 24 weeks was 50% and looks broadly in line with nivolumab at 58%.
- **MPDL3280A in NSCLC** showed a response rate of 22% which compares well to the 18% shown by nivolumab last year (16% in the updated analysis in yesterday's abstract). PFS at 24 weeks was 48% for MPDL3280A.
- **MPDL3280A in Melanoma** showed a response rate of 29% which seems in line with the 28% shown by nivolumab last year (31% in the updated analysis in yesterday's abstract). PFS at 24 weeks was 35% for MPDL3280A. In addition, in the initial 3 patients that received a MPDL3280A combination with Zelboraf, Roche saw 2 responders including 1 complete response.

**Roche announce initiation of pivotal studies for MPDL3280A in NSCLC.** Roche has not commented yet on pivotal studies in other tumor types; we assume that Roche is less likely to pursue single agent studies in other settings, and hence is awaiting further data on combination before initiating pivotal studies outside NSCLC.

**Source:** JPMorgan/Hauber, May 16, 2013
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