## Market Overview: AACR to Highlight Deeper Understanding of Immunotherapies, New Roles for Jak, PARP, and BTK Inhibitors

The AACR meeting (April 5-9) titles available highlight incremental cancer research and early stage clinical findings. An FDA presentation focusing on trial designs to accelerate approval of promising new cancer drugs underscores the agency's continued positive attitude towards industry.

**Deeper understanding of immune oncology approach.** A number of abstracts will focus on correlating clinical responses for Merck & Co.'s PD-1 antibody MK-3475 with PD-L1 expression (melanoma, colorectal, lung). Additional focus includes: PD-L1 role in head/neck cancer, use of peptides to inhibit PD1 pathway, rationale for HDAC6 inhibition in combination with PDL1 blockade, novel TDO/IDO inhibitors (NewLink), rationale for combining PD1/PD-L1 with IDO inhibitor.

**New roles for Jak inhibitors in multiple tumor types.** Presentations suggests a rationale for combining a Jak inhibitor with a BTK inhibitor in diffuse large B cell lymphoma (DLBCL), and using Jak2 inhibition in ovarian cancer; a loss of function Jak1 mutation study could provide a broad view of where Jak1 inhibitors may be useful in oncology.

**Novel drugs targeting T790M EGFR mutant lung cancer.** Multiple companies will have data for their novel inhibitor aimed at targeting lung cancer with the T790M EGFR mutation including: Clovis (CO-1686), AstraZeneca (AZD9291), Astellas (ASP8273), Innova Pharma (KL-ON113), Novartis (EEGF816), Roche/Genentech (series), and ImmunoGen (IMGN289-an ADC).

**Role for PARP inhibitors beyond BRCA+ breast cancer.** New data could broaden potential areas of interest for PARP inhibitors, including: a subset of lung cancer with overactive PARP, endometrial cancer, gastric cancer, Ewing's sarcoma, in Herceptin resistant Her2+ breast cancer, head and neck cancer, and as combination therapy with a CDK inhibitor or radiation.

**Novel early stage drugs of interest.** New data for several products could be worth watching: Additional results for Sanofi's anti-CD38 antibody SAR'984 in hematologic malignancies, Incyte's selective delta PI3kinase inhibitor INC'093, GlaxoSmithKline's ADC '916 licensed from Seattle Genetics for myeloma, myeloma synergies for Celgene's Revlimid and licensed HDAC6 inhibitor ACY-1215, Amgen's Ang1/Ang2 antibody AMG-780 for renal cell carcinoma.

**Novel roles for ibrutinib, second generation BTK inhibitor.** There will be in vitro data for ibrutinib in Her2+ breast cancer cells. Acetra Pharma will have multiple presentations on ACP-196, touted to be a more potent/selective BTK inhibitor.

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