Roche: Has Broadest Immuno-Oncology Portfolio vs. Peers; Avastin + PDL1 Combo Likely to Become 1st Approved Immunotherapy Combination

Roche has historically actively downplayed both: (i) the potential of immunotherapy to transform cancer treatments (ii) its own immunotherapeutic capabilities. We think Roche's reticence in elaborating on the transformative potential of immunotherapy in cancer to date reflects its previous lack of leadership position in immuno-oncology (dominated by BMY) coupled with the potential competitive risk to its in-market oncology agents (Avastin and potentially Rituxan in maintenance setting).

Roche now has the broadest immuno-oncology portfolio of any company globally. Over the last 6-12 months, Roche and Genentech have invested in internal and external novel immunotherapeutics across multiple modalities. Roche has three immune-oncology assets in clinical development across multiple indications: anti-PDL1, an anti-CD40 and anti-CSF1R as well as bi- specific TCR (through Immunocore).

Roche has a broad immuno-oncology pipeline, driven by multiple licensing deals in the past few months

	Peak sales	Risk-adj peak sales	Company	Target
RG7446/ MPDL3280A (anti-PDL1)	9,000	7,000	Immatics	peptide vaccine
INO-5150 (DNA vaccine)	1,500	330	Inovio	DNA vaccine
IMA942 (peptide vaccine)	1,500	330	VLST (through PFE)	CD40 agonist
Anti-CD40	2,000	440	Immunocore	Bi-specific T-cell receptors
ImmTACs	1,500	330		
RG7155 (CSF-1R)	1,500	330		
	17,000	**8,760**		

Source: Citi Research, Company data. Note: Sales estimates in SFr m

Roche has the technology to tackle non-immunogenic cancers. We estimate that a third to half of all cancers will remain non-responsive to checkpoint therapy at baseline and will require a form of "immune priming". We anticipate that Roche will initiate clinical trials with at least three intriguing novel agents during 2014. These include Inovio and Immatics vaccine candidates (INO-5150 and IMA942) in combination with its PD-L1 or anti-CD40 agent, as well as clinical trials with its bi- specific ImmTACs, with the promise of at least 10 novel IT agents to enter clinical development over the next decade.

Roche's Avastin + PDL1 combo is likely to become 1st approved immunotherapy combination. Late in 2014, we anticipate headline data from Roche's PDL1 in combination with Avastin ± chemo in colorectal, lung and renal cancer.We also note that competitor BMY is likely to present data with its anti-PD1 nivolumab in combination with Avastin, potentially at ASCO 2014. We think Roche's exploratory combination with Avastin ± chemo has the potential to become standard of care (likely 2016) well before Yervoy (BMY), tremelimumab (AZN) and IDO-based combinations (Incyte, NewLink).

Likely promising data in anti-CSF1R (RO5509554, RG7155) in subgroups of breast and ovarian cancer. We anticipate that Roche will present data from the ongoing 140 refractory patients phase I/II trial with the macrophage targeting agent anti-CSF1R in combination with Taxotere in breast and ovarian cancer. Anti-CSF-1R depletes tumor-promoting macrophages and increases the CD8/CD4 T cell ratio in the clinical tumor microenvironment. We anticipate responses across multiple tumor types given the impact of on T cell composition of the tumor micro environment (presented at AACR 2013) as well as data from animal models. Separately, small molecule inhibitors of CSF-1R have also resulted in enhanced autoimmunity in adoptive cell therapy.

Source: Citigroup/Baum, February 11, 2014
Oncology Indication: Multiple
Keyword: Clinical Trials/Pipeline