Promise of immuno-oncology therapies is boosting R&D funding, alliances

*mAbs, vaccines, T cell engineering lead I/O product development*

- Range of tumors studied in clinical trials during 2013-15 spanned 28 cancers.
- More than 130 biotech and 20 pharma companies worldwide are working on I/O therapies.
- I/O is also driving major engagement between pharma and universities/cancer centers.
- Total I/O oncology alliance R&D funding commitments increased nearly tenfold from 2013 to 2015.
- Alliances between pharma/big biotech and small enterprises grew from 6 in 2013 to 58 in 2015.

Immuno-oncology (I/O) research, which currently spans hundreds of clinical trials and new therapies aimed at treating at least 28 types of tumors, is taking alliances between pharma, biotech companies, and university and cancer centers to new heights. Currently, more than 130 biotech and 20 pharma companies are developing I/O therapies. The global oncology market in 2014 reached $100 billion, and market analysts are projecting a market of $25 billion to $40 billion by 2020 just for I/O products.

Despite a promising start to the “I/O era,” the challenges are many. On the discovery front, developers are looking for validated biomarkers that will increase the likelihood of clinical success, shorten development time, and reduce cost. Because I/O therapy at its essence is a personalized medicine, organizations running clinical trials, already facing significant challenges recruiting patients, will be further pressed to find volunteers from ever more narrowly defined populations that I/O therapies seek to address. While, as this report indicates, there currently is ample funding for I/O therapy development, drug companies and investors, in estimating potential returns on their substantial investments, need to be mindful of the cost-benefit metrics payers may adopt to guide reimbursement and possibly limit market access.