



Update in Immuno-Oncology: Multiplicity of Drug In-Licensing Opportunities to Expand Your Pipeline

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Introduction

Immuno-oncology (IO) has revolutionized the treatment of many deadly cancers in the last seven years. Further, IO continues to shape the pharma industry as the global IO market is expected to more than double over the next eight years to \$126.9 billion (GrandView Research). Much of this market growth has been spurred by checkpoint inhibitors with market leader PD-1 antibody Keytruda leading the pack at \$7 billion in 2018 revenue. However, only 12.5% of patients respond to checkpoint inhibitors, leaving a large unmet need in the field (Haslam et al. JAMA Netw Open, 2019) and plenty of opportunity to capture market share.

Outcome Capital has followed the IO space extensively (Mehrotra et al, In Vivo, 2018). This market update captures assets currently in development and recent partnering/in-licensing transactions which can catalyze development and improve valuation for companies

Since 2015, over \$800 billion deployed over 10,000 capital raises has catalyzed the number of IO assets in development (Source: GlobalData). In the last two years alone, 800 IO drugs have started development

(Yu et al, Nature Reviews, 2019). Many of these drugs have advanced into clinical development, with over 2100 drugs currently being in Phase I or II (Figure 1). Interestingly, despite the development costs and challenges of cellular immunotherapies, they overshadow other therapy types in this subsector (Figure 2). In addition, the promise of an off-the-shelf allogeneic T-cell therapy, which overcomes much of the development challenges of currently approved therapies

is garnering much interest from venture-backed and public companies alike. These “living therapies” can persist for up to a year in patients (Nayar et al, Oncoimmunology, 2015), partially contributing to their success. Despite the dramatic influence checkpoint inhibitors had on the market, antibodies represent only 250 drugs currently in clinical trials.

In-licensing deals is the pharmaceutical industry’s preferred

Figure 1

Large Drug Development Pipeline in IO with 2100+ Compounds in Phase I & II

Source: GlobalData, excluded pre-clinical & discovery, data was collected 10/15/2019.

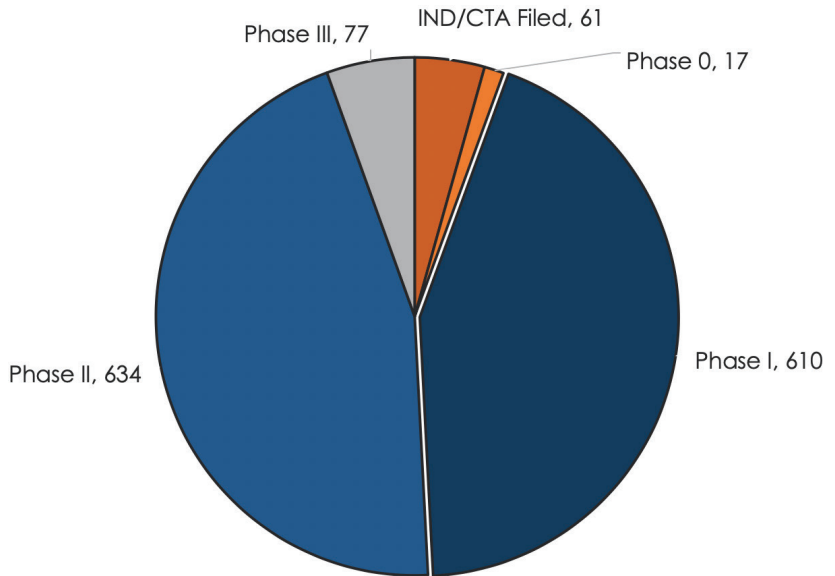
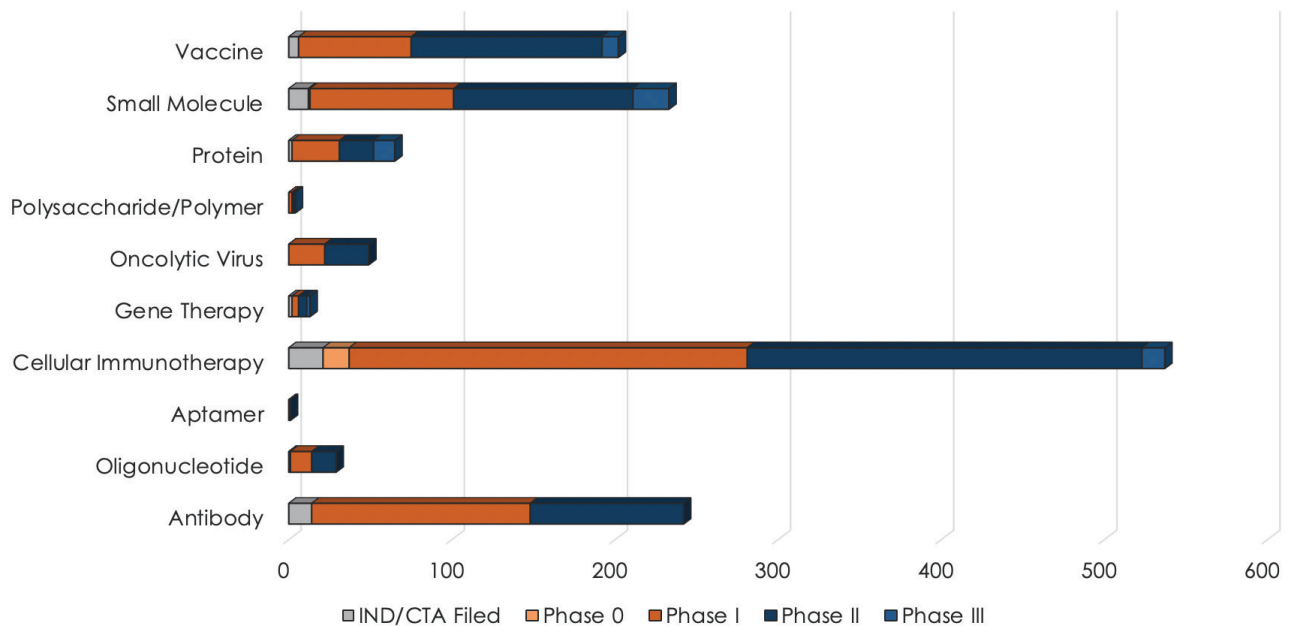


Figure 2

Cellular Immunotherapies Dominate Clinical Pipelines

Source: GlobalData, excluded pre-clinical & discovery, data was collected 10/15/2019.



mode of business development. Well-capitalized private or public biotech companies can garner the rewards of speed as well as risk and cost mitigation that in-licensing

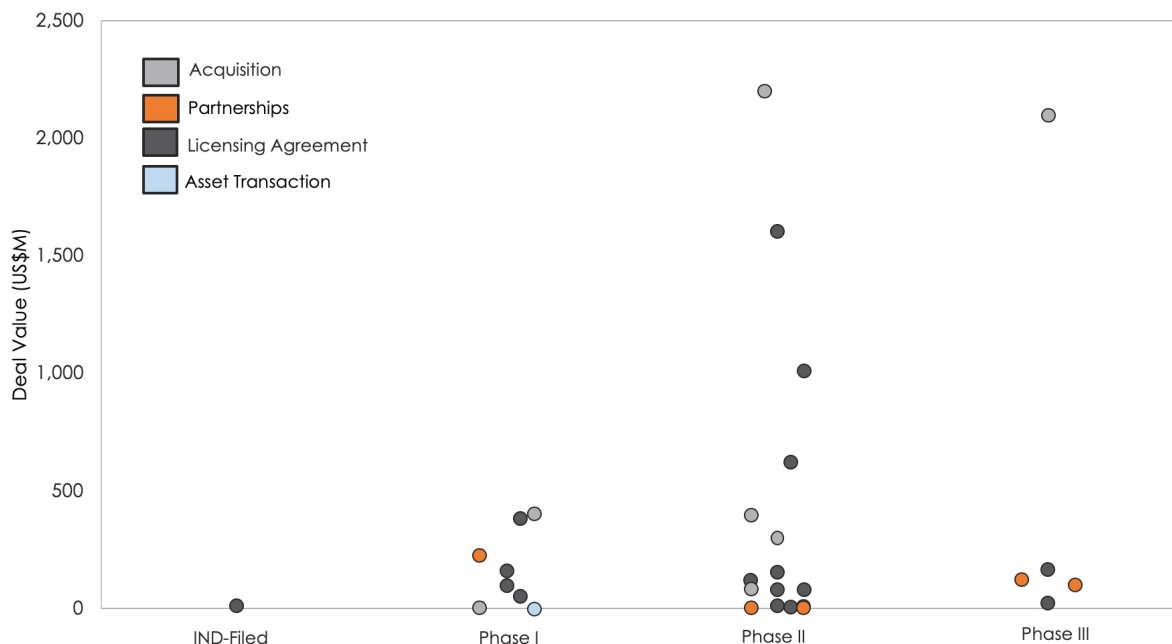
offers, not to mention the obvious of pipeline augmentation. The majority of strategic alliances and M&As are licensing agreements (Figure 3), with Phase II being

the most sought after clinical-stage. Notably, in the last year alone we've seen eight clinical IO transactions with a deal value over \$500 million, demonstrating the

Figure 3

IO Assets Command Premium Deal Values

Source: GlobalData, excluded pre-clinical & clinical, Deals over the last year and data was collected 10/15/2019.



high value the market places on these assets. In this highly dynamic marketplace, IO companies need to keep an active pulse on market trends and should look to in-license or acquire a later stage clinical asset to remain competitive.

Prior to in-licensing or acquiring assets, companies should assess if they have the resources necessary to complete a transaction. To start, they should confirm that the proper funding to finance the deal with a reasonable upfront and milestone payments is available. If not, a strategy needs

to be developed to raise capital. In-licensing can be a great opportunity to “leap-frog” by acquiring a later stage asset than resident in one’s current portfolio. This can serve to increase valuation and be a sooner (or first) market entry. Companies should contemplate how an asset can reshape or solidify their corporate identity (i.e. do you want to stay with the same pathway or class of pathways?). Finally, internal bench strength is necessary to vet opportunities. To accomplish this, establish a strong due diligence team with relevant

expertise. Buyers are well advised to consider end-game issues such as commercialization early in their planning process. Market players are often highly focused on the science itself and, as a result, might pay less attention to key issues such as supply chain, intellectual property components, and reimbursement. By evaluating the competitive landscape and commercialization pathways early on, buyers can work to mitigate the risk of in-licensing/acquisition.



About Outcome Capital

Outcome Capital is a specialized life science and technology investment bank with a global reach, providing middle market companies with a value-added approach to mergers and acquisitions, corporate finance and advisory services. The firm uses its proven ‘strategy-led execution’ approach to value enhancement by assisting boards and management teams in navigating both the financial and strategic markets and in implementing the best path for success. Outcome Capital’s strength stems from its unique ability to draw on its wide range of operational, strategic and investment experience, its expertise across the life science value chain, and its broad industry relationships.

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