termsheet

August 2018
Issue 25

Heads of Terms

The Far Eastern Opportunity

Hopefully many of you will have watched our exclusive discussion on the business opportunities in South Korea, as well as having the opportunity to read some of our articles on the opportunities in the Far East.

From a product development and commercialisation point of view, Japan, South Korea and China should always be an integral part of a company's strategy. However, gaining sufficient knowledge and appropriate access to these territories can remain a daunting task. Besides culture and language, the regulatory, pricing and reimbursement issues can present additional levels of complexity. Nevertheless, the rewards from entering these markets can be significant. A combination of access to additional capital, high quality innovation, clinical and regulatory skills as well as the sheer market size cannot only boost one's presence in these markets alone but can also enable faster growth globally. In other words, strategic partnering with companies in these countries can truly reap rewards. An example of this is the recent capital raising from China we did for the UK biotech Biosceptre.

From its inception, just over 25 years ago, PharmaVentures has built an enormous amount of experience in the Far East through its many clients in both Japan and South Korea. In recent years, this has expanded to China and we have recruited talent who not only speak the languages, but also have built extensive relationships and networks in these territories. This, together with the considerable expertise that we have in all aspects of healthcare deal making, puts PharmaVentures in a very powerful position to assist you in developing your Far Eastern strategies.

Dr Fintan Walton
Chief Executive,
PharmaVentures Ltd.

Industry Insight

Immuno-Oncology Drives Better Outcomes In NSCLC, But Is This Now An Overcrowded Space?

Jansen Jacob
Director

Eric Liu
Analyst

Barely a month passes without an announcement of improved survival rates for non-small cell lung cancer (NSCLC) patients. Much of this has been driven by favouring a personalised medicine approach over the historic "one size fits all" chemotherapy paradigm. Drugs which target specific mutations such as EGFR and ALK have been at the forefront and this has been further supplemented with the application of anti-PD-1/PD-L1 agents (as monotherapies or in combination) where Merck's Keytruda® (Pembrolizumab) has been leading the charge. In fact, ASCO 2018 has solidified Merck's dominant position in first line settings.

NSCLC is the first indication where all four of the major PD-1/PD-L1 therapies are going head to head. It is clearly a high value area but does the ongoing prosecution of multiple clinical trials for monotherapies and combination therapies mean that the space is now overcrowded, and the R&D community will start to look at other indications.

Clinical trials with market defining endpoints are coming to conclusion for each of the four major players; Merck, Bristol-Myers Squibb, Roche and AstraZeneca. AstraZeneca anticipate an overall survival benefit read out from their Mystic trial for Imfinzi® (Durvalumab) in H2 2018. Bristol-Myers' Opdivo-Yervoy combo CheckMate-227 trial has already announced 43% progression free survival (PFS) at 1 year versus 13% for chemotherapy and is seeking approval in patients with a tumor mutational burden of ≥10 mutations per megabase. Merck's Keynote-042 Keytruda study showed median overall survival benefit of between 16.7 and 20 months (depending on PD-L1 expression level, compared to 12.1 – 13 months for chemotherapy and will therefore allow the entire population of PD-L1-positive patients (who make up about 70% of first line patients) to be treated with Keytruda. Merck also scored big on 30th July when it received recommendation from the CHMP on its Keytruda-chemo combo. Roche's IMpower 130 and 131 studies gave promising results for Tecentriq® (Atezolizumab) in NSCLC with a number of chemotherapy combinations and among both squamous and non-squamous patients.

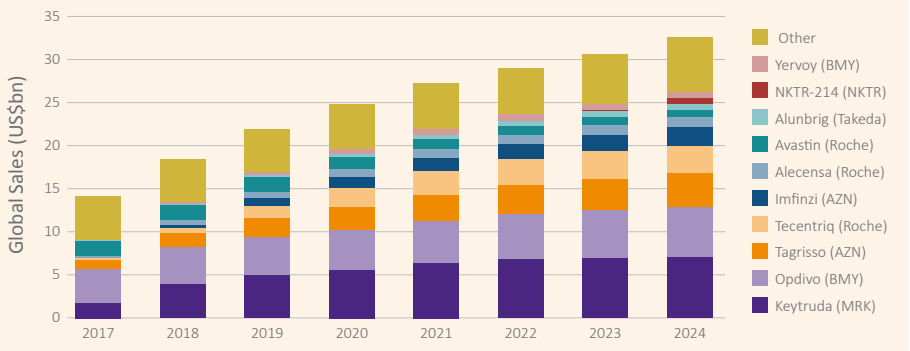

Figure 1
Total worldwide sales for NSCLC from 2017 to 2024. Analyst consensus forecasts. Source: Evaluate Pharma

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PharmaVentures
Experts in deals and alliances

Industry Insight

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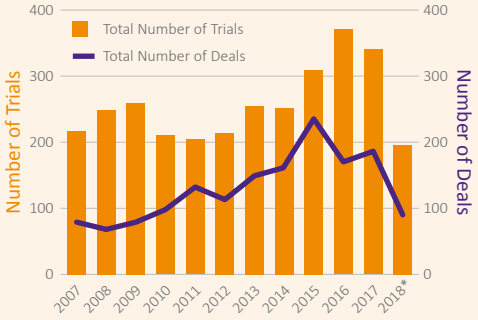
Immuno-Oncology Drives Better Outcomes in NSCLC

In addition to the checkpoint inhibitor led studies, Tagrisso® continues to impress in the EGFRm setting. In fact, one analyst* predicts Tagrisso global sales will surpass US $5 billion by 2022 and reach US $5.8 billion in 2023. Figure 1 demonstrates the estimated continued growth in worldwide sales from just above US $14 billion to over US $32 billion by 2024.

Despite an already competitive space and the leading drugs taking dominant positions, the market still anticipates sufficient scope for additional therapies to enter and thus innovation remains strong. Let's not forget, that despite these big steps forward in survival levels, only a minority of NSCLC patients respond, and those that do still have a very limited life expectancy. Differentiated products that show superior properties in sub-groups, i.e an increasingly personalised approach, will continue to be rewarded strongly by the market. This market perception is demonstrated by the continued solid number of ongoing clinical studies, robust volumes of deals as well as high number of compounds in clinical development, as seen in Figures 2A and 2B.

A



B

NSCLC compounds in clinical development	
Phase III	76
Phase II	274
Phase I	140

Figure 2

(A) Total number of trials started each year.
**As of June 19, 2018. Clinical Trials.Gov and Cortellis Deals.*

(B) Count of the number of compounds in clinical development as of 27 June 2018.

Source: EvaluatePharma, PharmaVentures analysis

The market continues to place sector busting valuations on assets transacted in this space and especially those that include NSCLC as part of the deal. The most striking example being the Nektar-BMS deal in February 2018 whereby the parties signed a worldwide strategic collaboration agreement for the development and commercialisation for NKTR-214 in combination with Opdivo / Yervoy in more than 20 indications across nine tumor types. NKTR-214, a CD122-biased agonist, has the potential to increase PD-1 expression on T cells and NK cells. BMS agreed some eye-watering finanacilas with an upfront cash payment of US $1 billion, an equity investment of US $850 million as well as US $1.78 billion in milestone payments. Close collaborations have also been evident amongst the big players, exemplified by AstraZeneca and Merck establishing a worldwide immuno-oncology alliance to develop and commercialise Lynparza and Selumetinib in combinations with Imfinzi and Keytruda. Merck is set to pay AstraZeneca up to US $8.5 billion in a total consideration that includes US $1.6 billion upfront.

Whilst all the buzz has been mainly associated with checkpoint inhibitors and combinations with other therapies in immune-oncology, other innovative approaches are also emerging. One such company is Bioven, which has a platform technology generating fusion proteins of growth factors and a carrier protein. These molecules are then used to immunise cancer patients who subsequently generate growth factor sequestering antibodies to effectively cut off the fuel supply to the tumours. This novel approach has shown benefits as a monotherapy but the differentiated superior efficacy in NSCLC is anticipated in combination with checkpoint inhibitors or TKIs.

What does all this mean? Despite an increasingly busy space, it isn't as crowded as it might appear and there is still much room for continued growth, innovation, high value deals and most importantly improved patient outcomes in NSCLC.

It certainly is an exciting time for NSCLC treatments. The active development of multiple treatment strategies is already yielding good outcomes for patients and the treatments in development are set to meet the needs of even the hitherto difficult to treat patient subgroups.

jansen@pharmaventures.com
eric@pharmaventures.com

Deal News

PharmaVentures advises SalvaRx Group plc on the acquisition of SalvaRx Ltd by Portage Biotech Inc.

PharmaVentures is pleased to announce that it acted as an independent adviser to SalvaRx Group plc (SALV:LSE) ("SalvaRx") and Portage Biotech, Inc ("Portage"), on the acquisition of its subsidiary SalvaRx Ltd by Portage. Subject to regulatory and shareholder consent, Portage will acquire 100% of SalvaRx Limited for an aggregate consideration of US$71.7 Million.

As SalvaRx is a related party of Portage, the transaction is subject to the requirements of Alberta Securities Commission's Multilateral Instrument 61-101 Protection of Minority Shareholders in Special Transactions ("MI 61-101"). As a consequence, the Transaction requires minority shareholder approval.

Although the transaction is exempt from the formal valuation requirements of MI 61-101 pursuant to Section 5.5(a) PharmaVentures was commissioned by SalvaRx and Portage to perform an independent valuation (the "Valuation") of SalvaRx Limited. The Valuation, dated July 23, 2018, provided the parties with, amongst other things, a discussion of various methodologies to value SalvaRx Limited as well as a range of possible values.

For more information see the Portage Biotech press release: https://www.prnewswire.com/news-releases/portage-to-acquire-salvarx-limited-300696910.html.

Adrian Dawkes, Managing Director, PharmaVentures, commented; "We have worked previously with SalvaRx and were pleased to provide our extensive valuation capabilities and market knowledge to assist in this transaction".

Fintan Walton, Founder and Chief Executive of PharmaVentures said; "PharmaVentures is trusted by long established pharmaceutical companies, governments as well as innovative biotechs like SalvaRx to provide high quality, robust and comprehensively researched valuations to support their key strategic transactions. We are pleased to have assisted SalvaRx in their endeavors".

Team News

PharmaVentures goes to Korea

Historically the Korean pharmaceutical industry was built based on manufacturing and generics, however, in recent years we have seen more innovative technologies and products coming out of this nation of 51 million people. In recognition of this growing trend, PharmaVentures has recently been very active in Korea, taking sophisticated pharma and biotech opportunities of the West to Korea and connecting exciting Korean innovations to the rest of the world.

Back in April, Adrian Dawkes, Managing Director was invited to present a seminar to the members of Korea Pharmaceutical Advanced Institution ("KPAI"). Attendance was at a historic high, with almost 100 pharma, biotech, investor attendees and government officials having made their way for the presentation titled "Big pharma's licensing checklist – toolkits from 35 years of pharma deal making".

Adrian was joined by Summer Park (Business Development Director) – a native Korean speaker – and the two of them, who bring an extensive network among Korean pharmaceutical, biotechnology companies as well as investors and government organisations, completed a hugely successful roadshow across the new innovation capital.

To hear about the trip and find out more about PharmaVentures' experience and networks in Korea, watch this exclusive discussion where Adrian and Summer take you back over the trip and explore new business opportunities that Korea has to offer.

adrian@pharmaventures.com
summer@pharmaventures.com

Meet the Team

Sheryne Shillingford-Reed
Executive Assistant to CEO

Sheryne's role at PharmaVentures is Executive Assistant to CEO and Founder, Dr Fintan Walton. Sheryne has a broad range of experience in supporting senior executives and key decision makers in both the public and private sectors, most notably for international companies.

Prior to joining PharmaVentures, Sheryne had a career spanning multiple industries from policing and social care to pharmaceuticals and health. Sheryne is joining us from Drayson Technologies where she held a position as Executive Assistant to the Chairman & CEO.

sheryne@pharmaventures.com

Join the Team

Opportunities to join our world class team

Office Manager/PA

PharmaVentures is looking to recruit an experienced Office Manager/PA to provide administrative support to its dynamic corporate advisory team.

Business Development Analyst

PharmaVentures is looking to recruit a Business Development Analyst who will be responsible for the development and execution of marketing activities, incorporating creative digital content, email and social media. The Business Development Analyst will be responsible for increasing PharmaVentures' digital profile.

How to Apply

Visit our website at www.pharmaventures.com/content/careers for further details and to apply for these posts.

Conference Update

Global Licensing Symposium
5th September 2018
Seoul, South Korea

BIO-Europe 2018
2-4 November 2018
Copenhagen, Denmark

Genesis 2018
13 December 2018
London, United Kingdom

J.P. Morgan 37th Annual Healthcare Conference
7-10 January 2019
San Francisco, United States.

If you would like to meet with PharmaVentures at any of these events, please contact Summer Park, Business Development Director

summer@pharmaventures.com

PharmaVentures Ltd
Triumph House, Parkway Court, John Smith Drive, Oxford Business Park, Oxford OX4 2JY
www.pharmaventures.com