

Completing the Deal

An Interview with Dr Fintan Walton,
Founder and Chief Executive of PharmaVentures



As Fintan Walton, the Founder and CEO of PharmaVentures, puts it himself, he was “fortunate enough to be able to enter the world of pharmaceuticals when the explosion of biotechnology took off in the 1970’s and 1980’s”. He was educated at Trinity College, Dublin as a geneticist and entered the world of biotechnology in the UK by joining Celltech, the first biotech in Europe, in the early 1980s. What Fintan finds fascinating about that period was that the technology being developed enabled scientists to really understand the basis of disease and hence, come up with truly break-through medicines as more and more biotech companies emerged worldwide. “Their research led to inventions and so the opportunity to license patents and do deals became a real driver in the biotech industry”.

What attracted you to founding a company that assists pharmaceutical and biotechnology companies in all aspects of deal-making?

The emergence of biotech companies like Celltech in the early 1980s meant that innovation was now taking place outside the larger but older pharmaceutical companies who had focused largely on drugs based on traditional chemistry. These larger companies needed to access these new innovations and so I predicted that there would be a rise in the number of biotech deals in the future. More importantly, it was clear that innovation supply and demand would become a global market.

What are PharmaVentures’ vision and values?

Central to our values are people. It touches every aspect of our business, from the dedicated talent at PharmaVentures to our clients and ultimately, to the patients that will benefit from these new medicines. What you find in deal-making is that it is really all about people. Although assets are the subject of a deal, it is people who make deals happen. Deal-making is both rational and emotional and to understand the drivers that make people put their signature to a contract is critically important. My job is to make sure that we have the right people at PharmaVentures that understand both the science and the business aspects, as well as how people are motivated to do deals.

Our vision is to build a company that is a true catalyst for making sure that innovative medicines get to patients as quickly and as efficiently as possible.

How did your company move from licensing to M&A?

It wasn’t a large leap really. In the end, a business with innovation still requires experts who understand innovation-related deals and how to do them. The first big deal we did was for Dow Chemical.

continued on page 4 . . .

industry insight

Are Traditional Chinese Medicines and Plant Extract Treatments the Basis of New Licensing and M&A Growth?



Eric Liu
Business Analyst, PharmaVentures Limited

Traditional Chinese Medicines (TCMs) are gaining interest worldwide. However despite being practised by significant numbers of people in more than 140 countries, the absence of robust evidence of efficacy and safety in conventional clinical trials remains a key challenge in mainstream commercial adoption, through licensing and M&A transactions. Against this backdrop 2017 was a milestone year. The University of Oxford opened its first Chinese Medicine Research Centre on 6th December, which is one of the first research centres in the West that solely focuses on the study of herbal extracts as therapeutics. At the same time, the US FDA required Tasly Pharmaceutical (Shanghai:600535) to conduct an additional Phase III trial before submitting a new drug application (“NDA”) for Dantonic (T89), widely anticipated to be the first Chinese herbal extract-based compound to receive FDA approval as a prescription drug. In September 2017, Ping An Insurance (Ping An) (HKEx: 2318; SSE: 601318) announced that it had entered into a strategic cooperation agreement with Tsumura (TYO:4540), the world’s largest manufacturer of Kampo medicine (Japanese herbal medicine). As a result, Ping An holds a 10% stake in Tsumura and the two companies have established a joint venture in China. These activities evidence the start of what may become exciting developments and recognition that herbal extract and Traditional Chinese Medicine products have a valid scientific and commercial role to play in the world of pharmaceuticals. This article will be focusing on the transactional aspect of this trend.

continued on page 2 . . .

featured client

Polarean Imaging Floats on AIM London Stock Exchange

On 29 March 2018, US-based Polarean Imaging (“Polarean”) successfully listed on the AIM (Alternative Investment Market) London Stock Exchange. As a part of this listing, PharmaVentures provided Polarean with an independent expert report on the technical and commercial perspectives relating to its hyperpolarised Xenon gas and related technologies, as well as its use with magnetic resonance imaging in the diagnosis and management of pulmonary diseases. This expert report was submitted to the Financial Conduct Authority as a part of the admission document. We would like to extend our congratulations to Polarean on achieving this significant milestone.



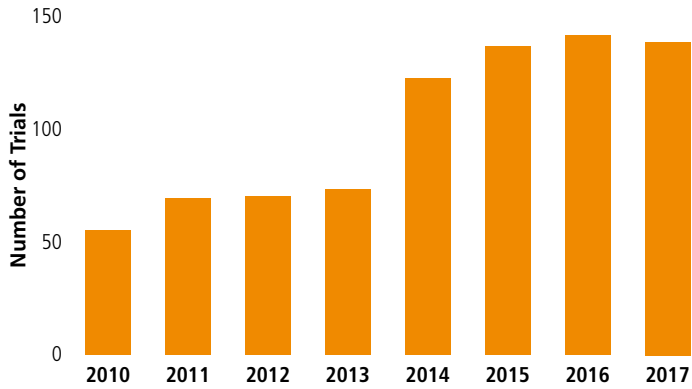
... continued from front page

Traditional Chinese Medicines

Strong Clinical Interest with Focus on Key Therapeutic Areas

Interventional Clinical Trials Involving TCM and Herbal

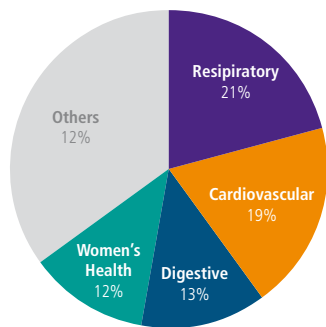
Number of clinical trials identified evaluating TCM and herbal extracts in ClinicalTrials.gov.



Extracted from ClinicalTrials.gov 5th Jan 2018.

Indication Distribution of TCM IND Applications

Indication distribution of TCM investigational new drug applications submitted to China FDA (CFDA).



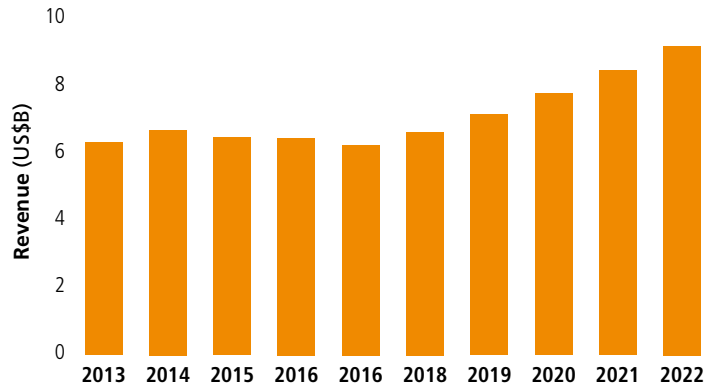
Source: CDE Annual Report 2016.

A rigorous level of scientific scrutiny and proper clinical investigations are the key for both innovation and growth of any medicines. The composition and philosophy can be based on herbal medicine, but the evaluation and clinical studies need to be of evidence-based Western standards. The number of interventional trials evaluating drugs derived from herbal extracts and TCM has seen a sizeable increase since 2010 to a peak of around 140 registered on ClinicalTrials.gov. Data shows a strong focus on chronic diseases and the latest CFDA Centre for Drug Evaluation (CDE) Annual Report details that 65% of all trials are focused on respiratory, cardiovascular, digestive and women's health. In particular, T89, as mentioned earlier is being investigated for the prevention and treatment of chronic stable angina pectoris due to coronary heart disease in the US.

Solid Market Growth and Increasing Market Acceptance

Global Revenue Projections for Plant Extract-Based Drugs

Historical and projections for global revenues of plant-extract-based drugs.



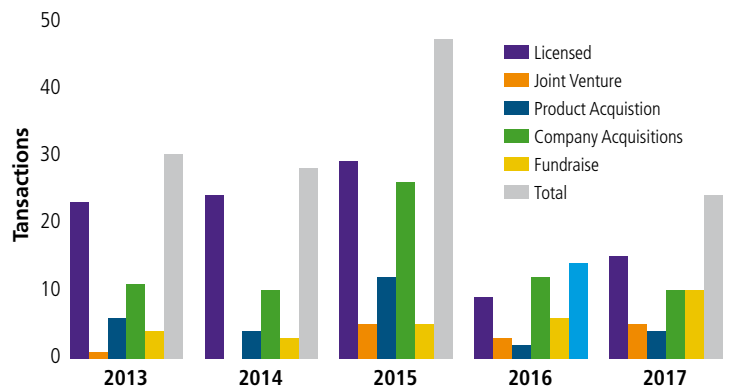
Source: Evaluate Pharma

Global revenue projections for plant extract-based drugs will experience a solid growth in the next few years. The global TCM market is also expected to register a significant CAGR. Frost & Sullivan estimates that the segment will deliver an 8.2% CAGR in sales during 2016-20. The Asia Pacific region will continue to be the leading market and experience the fastest growth. North America and Europe will also have moderate increase, with changing consumer perceptions and increasing acceptance as a treatment option.

Steady Transaction Activity and On-Par Financial Metrics

Global Transaction Activity of Plant Extracts

Number of transactions involving plant extracts for each category.



continued on page 3 . . .

conference update

Upcoming Conferences

The MedTech Strategist Innovation Summit

17-19 April 2018

Dublin

Fifth Midkine Symposium

3-5 May 2018

Katholische Akademie in Bayern. Munich, Germany

Bio International Convention

2-7 June 2018

Boston, MA, USA

To meet with PharmaVentures' experts at any of these conferences, please contact

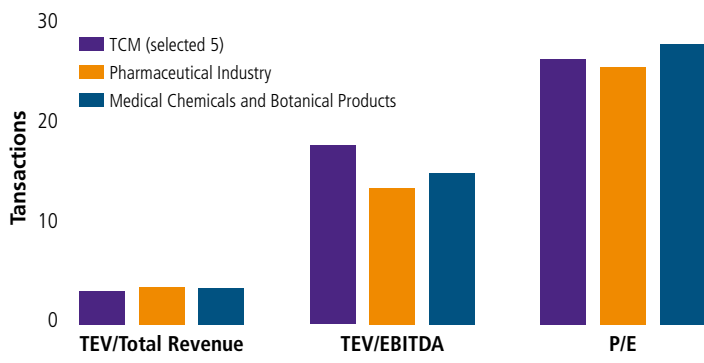
Sara Essa: sara@pharmaventures.com

... continued from page 2

Traditional Chinese Medicines

Trading Multiple Comparisons

Trading multiple comparisons between 5 selected TCM companies and industry averages for pharmaceutical category and medicinal chemicals and botanical products category. The 5 selected TCM companies are China Traditional Chinese Medicine, Tong Ren Tang Technologies Co, Yunnan Baiyao Group, Kangmei Pharmaceutical and Tasly Pharmaceutical. Source: Evaluate Pharma, Pitchbook, Capital IQ.



The total global transaction activity has fluctuated over the last 5 years (2013-2017) and it is probably too early to pick out real trends. Of the different deal types, investments and joint ventures have increased year on year. This is indicative of companies starting to engage and with the increased clinical trial activity in the last three years leads us to expect similar upturn in licensing and M&A activities in the next few years. Examining trading multiples, TCM companies, as represented by 5 top tiered firms, are trading at a similar level when compared to the average of the pharmaceutical industry and medicinal chemicals and botanical products segment, suggesting solid earnings and good investor understandings of the companies' business models.

Favourable Policies

Favourable government policy support has been a key driver for growth. China for example, has set the development of the TCM industry as part of the 13th Five-Year plan. South Korea, Japan and other Asian countries also have favourable policies encouraging herbal medicine development and innovation.

Notably, a policy with tremendous impact will be implemented in early 2018. Certain TCMS, if their ingredients are the same as in classic Chinese formulations, may no longer require clinical trials to be approved in China. The State Administration of Traditional Chinese Medicine and the CFDA have been composing this list of approved formulations since October 2017, in preparation for its release in early 2018. This policy is met with mixed reception, due to concerns on safety and proper evaluation. However, this means companies can skip time-consuming and expensive clinical trials if they are developing these formulations.

Conclusion

2017 has been an exciting year for TCMs and we look forward to more research, clinical outcomes and of course more deals to be completed in 2018. Global appetite for TCMs and herbal extract-based products remains strong, with increasing levels of investments and transaction activity. Ultimately, companies will need true innovation and differentiating products, like that of small molecules and antibodies. Superior clinical efficacy and safety, based on robust scientific analysis, will need to prove these therapies are addressing areas of unmet medical needs. Ultimately this will be the decider for successful products and henceforth more successful deals.

For more informaton, contact Eric: eric@pharmaventures.com



Ashley Cox
Vice President

PharmaVentures strengthens its first class healthcare strategy and dealmaking capabilities with the recruitment of a new Vice President, Ashley Cox.

Ashley has built significant industry experience working directly for a number of pharmaceutical companies, undertaking both Project Execution and Business Development activities. Most notably, she has worked for firms such as Lundbeck, Teva and Glenmark, where she led business development and sales activities across a wide range of products and services.

Fintan Walton, PhD, Chief Executive of PharmaVentures, said: "We are delighted to welcome Ashley to PharmaVentures. She has an impressive track record in healthcare strategy consulting and dealmaking. Her wealth of experience will add significant value to our clients in their dealmaking and commercial strategy activities".

Most recently, Ashley worked with SmartAnalyst, Inc., as the Senior Director, European Business Development supporting Global Pharmaceutical and Biotech clients in their disease, asset and portfolio strategy development. Previously, Ashley was Head of Global Business Development for the Prescient Healthcare Group, with a strong focus on Competitive Intelligence and Business Analytics. Ashley has supported decision making in the majority of the top 20 pharma companies and many biotech companies. She started her career as a Medical Representative and has held a variety of commercial and licensing roles across the pharmaceutical and generics sectors.

Ashley received a BSc. (Hons). in Neuroscience from the University of Glasgow and a Masters in Pharmaceutical Analysis from the University of Strathclyde.



Conn Maguire
Business Analyst

Conn is an Analyst at PharmaVentures. Prior to joining PharmaVentures, Conn worked as a Business Development Adviser for the University College Dublin spin-out, Phision Therapeutics. Here, he created a comprehensive business

plan for the development of a small molecule candidate with a novel mechanism of action in the treatment of age-related macular degeneration. He also worked as the Head of Content Development at the education technology company, LearnSignal.

Before embarking on his professional career, Conn completed a Master of Biotechnology and Business (First Class Honours) from the UCD Michael Smurfit Graduate Business School. He also holds a BSc in Environmental Biology (First Class Honours) from University College Dublin.

join the team

Opportunities to Join a First Class Team

Business Analyst

To assist in the research and analysis of pharmaceutical biotechnology, medtech and diagnostic companies, products and technologies.

To apply download the application form from <http://bit.ly/2zljOj0> and email it with your CV to ellie@pharmaventures.com

... continued from front page

Completing the Deal

They were already clients of ours in the area of licensing, but they needed to sell one of their manufacturing operations in the UK. We successfully sold it to an Indian company called Dr Reddy's and that led to numerous sell-side deals with other large corporations. Following that, we recruited several people from investment banking and we were able to build our M&A business further. Recently, we created PharmaVentures Capital which is FCA regulated, enabling us to expand our services even further into regulated financial services, such as fund raising.

What difficulties do pharmaceutical and biotechnology companies typically face before or during transactions? How can these difficulties be overcome?

There are several difficulties that people face, but the most common one revolves around understanding the value of the asset and how that is perceived by the other side. Since a lot of the assets have still not reached the market, there is inherent risk that it still might not. Determining that risk can complicate the perception of value. Clearly, the asset has to be attractive, but its value has to be argued - whether you are the seller or the buyer. When we help our clients, we help them develop rational arguments for value. We have developed advanced valuation techniques that have withstood the tests of time. When entering into negotiations, you need to be well equipped on how you are going to argue for price. Poor preparation for a sale and negotiation is a common difficulty.

Which factors arising from the due diligence process have the potential to stop a deal going through?

Negotiators often underestimate the degree of due diligence that will take place. A seller must ensure that there is an answer to every question and that every document is retrievable quickly. Delays in answering a question because it was unforeseen leads to doubts from the buyer. A common problem that we have seen in our industry is the lack of sound scientific data. Credibility is key. If the seller or licensor is under the illusion that their data provides sufficient evidence for the potential of their product and it doesn't, then the deal can stop dead. Connected to all of this is trust. Negotiation is about creating trust, after all the other side depends on it and if it's not there - the deal can quickly dissipate.

What complex issues usually arise during a negotiation process and how are they overcome?

Dealmakers like to blame lawyers for creating complex issues which may be unfair, but often it is the wording in the contract that can give rise to disputes or a potential change in the financial terms that were agreed at the heads of terms stage. Commonly, previously undisclosed facts that emerge at a late stage can scupper deals, even if they were never intentionally undisclosed. Again, this relates to trust - lose that and you lose the deal.

Where do you see the opportunities for transaction growth for coming from next?

The answer to that goes back to the thoughts I had over 25 years ago - it will be innovation. It is innovation that is growing at the fastest rate ever and for every piece of innovation, there is at least one deal! Added to that, we now have the cross-connection of innovations. This includes how advanced materials, electronics and devices are now feeding into the healthcare sector.

To read the full interview, visit the [CEO Today website](#).

PharmaVentures invited to present to key businesses and government in Korea

The Asia-Pacific healthcare industry has demonstrated rapid growth in the past decade. Here at PharmaVentures, we have been working closely with innovative pharma, biotech, medtech and diagnostics companies from this region, a significant part of which has been with Korean firms.

From 17-20 April, Adrian Dawkes (Managing Director) and Summer Park (Business Development Director) will be heading to Seoul for meetings with clients and partners. Adrian will also be presenting a seminar to an audience of key decision makers within Korean pharmaceutical companies and government, on "Big pharma's licensing checklist – toolkits from 35 years of pharma deal making". Whilst engaging with our Korean network, PharmaVentures will be representing cutting edge technologies of our clients from around the world, connecting global innovation to high profile healthcare companies in Korea.

If you are interested in working with Korean pharmaceutical companies or would like to meet with PharmaVentures in Seoul, get in touch with Summer: summer@pharmaventures.com

PharmaVentures in Action

Dr Fintan Walton, Founder and CEO of PharmaVentures, hosts the "Key Players Focusing on DealMaking to Alliance Management" panel at the 11th Annual European Life Sciences CEO Forum in Zurich, Switzerland.



Panelists:

Berthold Hinzen,

Head BD&L General Medicine,
Bayer HealthCare Pharmaceuticals, LLC

Constantine Chinoporos, CBO, Boston Pharmaceuticals, Inc.

Isabelle Heit, Director Global Alliance Management,
Takeda Pharmaceuticals International AG

Lubor Gaal, Head of Licensing and External Innovation, Almirall S.A.

Patrick Benz, Senior Director Alliance Management, Janssen,
Pharmaceutical Companies of Johnson & Johnson

Phil L'Huillier, Head, European Innovation Hub, MSD

All information provided is from PharmaVentures Capital Limited ("PharmaVentures") as at 5 April 2018 unless otherwise specified. This Termsheet is for information purposes only and is approved and issued by PharmaVentures which is authorised and regulated by the Financial Conduct Authority (741356). It is not intended for retail persons, if you are uncertain with regards to your eligibility you should seek independent professional advice on the matter. This document does not constitute investment advice of any sort or an offer or solicitation to invest or engage in any regulated activities. Past, future and simulated performance is not a reliable guide to future performance and should not be taken as such. Whilst all reasonable care has been taken in preparing this document, the information contained herein has been obtained from sources that we consider reliable but we do not represent that it is complete or accurate and it should not be relied upon as such. Neither PharmaVentures, its officers or employees shall be in any way responsible for its content. It is the responsibility of all users to be informed and to observe all applicable laws and regulations of any relevant jurisdiction, and to satisfy themselves that their use of this information and any subsequent activity is permissible under the applicable laws, rules and regulations of any applicable government, governmental agency, or regulatory organisation where they reside. This Termsheet is valid as of April 2018.