Evaluate Vantage

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Snippet roundup: Funding boosts the US NIH and could spawn a UK ubercorn

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Welcome to your weekly roundup of *EP Vantage's* snippets – short takes on smaller news items.

This week, March 19-23, 2018, we had thoughts on the following: Lokelma gets a late reprieve in Europe; NIH in line for budget boost in 2018 spending measure; Sun's gamble to move away from generics scores its first success; Boston tucks Nxthera in; fresh £100m funding round ramps up Oxford Nanopore; Regeneron relief as Eylea's Panorama widens; SelectMDx selected for guideline inclusion.

These snippets were previously published daily via twitter.

Lokelma gets a late reprieve in Europe

March 23, 2018

Many might already have written off Astrazeneca's $2.7bn takeout of ZS Pharma as an expensive mistake, but the EU regulator just gave the UK company a reprieve by approving ZS's lead asset, Lokelma (ZS-9), for hyperkalaemia. The spotlight now falls on the US, where Lokelma got a first complete response letter in May 2016, just six months after the ZS takeover, and a second a year ago. Investors might view the EU green light as a good omen for the latest US verdict, expected by the mid-year, but they should also remember that it is not particularly rare nowadays for the two regulators to take opposing views on a subject. Both CRLs had concerned manufacturing deficiencies. Either way, the damage has already been done: Lokelma's delay has enabled much of the hyperkalaemia market to be seized by its rival Veltassa, developed by Relypsa and now owned by Vifor Pharma (formerly known as Galenica). Lokelma and Veltassa were once expected by the sellside to share $1.4bn of 2022 sales equally, but the balance has now swung in the latter's favour.

Hyperkalaemia drug forecasts

		Global sales ($m)				
Product	Company	2018e	2019e	2020e	2021e	2022e
Veltassa	Vifor Pharma	188	312	444	580	713
Lokelma	Astrazeneca	51	156	301	420	535*
Argamate	Astellas Pharma	59	59	58	58	59
Kayexalate	Torii Pharmaceutical	17	17	16	15	14
RDX022	Ardelyx	-	-	3	6	9

*Source: EvaluatePharma sellside consensus. *US accounts for $274m of this.*

NIH in line for budget boost in 2018 spending measure

March 22, 2018

The US National Institutes of Health will be getting its first big boost in funding this decade under omnibus federal spending legislation agreed by congressional leaders yesterday. The $3bn increase will take the institutes, which fund basic science research that leads to developmental pharmaceutical projects, to a total budget of $37bn for fiscal 2018. Priorities cited by congressional leaders include a 30% increase in Alzheimer's disease research, to $1.8bn; a 26% increase in precision medicine research, to $290m; a 67% increase in research into a universal influenza vaccine, to $100m; and a fivefold increase in regenerative medicine research, to $10m. The federal government has been funded by a series of temporary measures in line with the 2017 budget since the beginning of the 2018 fiscal year on October 1. Congress needs to pass the omnibus measure, which funds the government through the rest of fiscal 2018, by the end of the day on March 23 to avoid a government shutdown due to expiry of the existing temporary spending measure.

NIH appropriations by year

2009	$30.5bn
2010	$31.2bn
2011	$30.9bn
2012	$30.9bn
2013	$29.3bn
2014	$30.1bn
2015	$30.3bn
2016	$32.3bn
2017	$33.1bn
2018*	$37.0bn

Source: NIH, House appropriations committee summary
**Proposed*

Sun’s gamble to move away from generics scores its first success

March 22, 2018

Mounting competition and price pressures have turned generics into a tough business over the past two years, making Sun Pharmaceutical’s foray into patent-protected brands look particularly prescient. Yesterday the strategy reached a milestone, with the US FDA making Ilumya, a psoriasis drug, Sun’s first non-generic to be approved in the West. Sun’s other moves to increase sales of innovative, “value-added” products include deals with Novartis and Astrazeneca to sell branded prescription products in Japan and India respectively. Sun gained Ilumya four years ago from Merck & Co, which was likely put off by competition and the advent of generics in the psoriasis market. Still, the Indian group financed but did not carry out Ilumya’s late-stage development – that work fell to Merck – suggesting that it still has some way to go to establish a US brand presence. And Ilumya itself is unlikely to shake up the psoriasis market; still, the desire of a company the size of Sun, which by 2017 sales is the fifth-largest global generics player, to distance itself from its core expertise should give competitors something to think about.

Forecast sales of anti-IL-23 Mabs

			Sales ($m)	
Drug	Company	Status	2017	2022
Tremfya (guselkumab)	Johnson & Johnson	Marketed	38	2,018
Risankizumab	Abbvie	Phase III	-	1,156
Ilumya (tildrakizumab)	Sun Pharma/Almirall (ex-Merck & Co)	Approved	-	91
Mirikizumab	Lilly	Phase II	-	17

Source: EvaluatePharma

Boston tucks Nxthera in

March 21, 2018

The acquisition of Nxthera, maker of a transurethral radiofrequency thermal therapy for benign prostatic hyperplasia, is the fourth tuck-in deal Boston Scientific has struck this year. The up-front fee of $306m puts the deal squarely in Boston’s recent range; it has not done a deal worth more than $1bn since it bought the men’s health unit of American Medical Systems back in August 2015. Boston already had a minority investment in Nxthera, having led a $40m funding round back in December 2015, so the up-front payment will actually net out at around $240m. Potential milestone payments by Boston could be worth up to $85m over the next four years. Nxthera’s device, called the Rezūm system, uses water vapour to remove excess prostate tissue during a minimally invasive procedure performed in the doctor’s office, and was approved in the US in 2015. The technology will slot neatly into Boston’s existing urology franchise, which brought it revenues of $1.1bn last year.

Boston Scientific’s recent acquisitions

Date	Deal Type	Target	Location	Value ($m)	Deal Status
March 21, 2018	Company Acquisition	Nxthera	USA	306	Open
March 05, 2018	Company Acquisition	Emcision	United Kingdom	-	Closed
January 24, 2018	Minority Stake	Millipede	USA	90	Closed
January 24, 2018	Option	Millipede	USA	450	Open
October 16, 2017	Company Acquisition	Apama Medical	USA	300	Closed
May 16, 2017	Company Acquisition	Symetis	Switzerland	435	Closed

Source: EvaluateMedTech

Fresh £100m funding round ramps up Oxford Nanopore

March 20, 2018

With Oxford Nanopore’s latest £100m ($140m) round of venture funding potentially valuing it at £1.5bn the UK sequencing company looks rapidly to be moving from unicorn status to ubercorn. This hefty valuation is attached to a company that last year reported orders of $23.5m. To justify its price tag Oxford Nanopore will need to show that its technology, which it claims is cheaper and faster than rivals’, can indeed open up emerging markets and edge out larger, less nimble players. And while its chief executive, Gordon Sanghera, has previously poured scorn on companies that sell out to rivals too early, investors who have so far happily sunk £441m into Oxford Nanopore will want their exit at some point. By the sounds of things Mr Sanghera’s preferred route would be an IPO, but the group might also attract interest from groups including Illumina, which has so far focused on bigger, more expensive desktop machines. As such, the handheld machines, with nanopore technology, that Oxford Nanopore offers could be a welcome addition to Illumina’s portfolio. The US

sequencing group is also one of Oxford Nanopore's investors, so is well placed to make a move but, as has previously been shown by other former unicorns, turning mythical beasts into profitable companies can run up against reality.

Oxford Nanopore's venture financing rounds

Financing Date	Financing Round	Investment ($m)	Investors
20 March, 2018	Series J	140.0	GIC, CCB International, Hostplus, and existing investors
12 December, 2016	Series I	126.0	GT Healthcare, Woodford Investment Management
21 July, 2015	Series H	109.0	Undisclosed Investors
12 August, 2014	Series G	59.0	Woodford Investment Management
09 October, 2013	Series F	64.0	Odey Asset Management
03 May, 2012	Series E	50.8	Undisclosed Investors
26 April, 2011	Series D	41.0	Illumina, Invesco Perpetual, IP Group, Lansdowne Partners, Redmile Group
01 February, 2010	Series C	28.0	Invesco Perpetual, IP Group, Lansdowne Partners
11 January, 2009	Series B	18.0	Illumina
28 March, 2008	Series A	20.1	Undisclosed Investors
	Total	*656*	

Source: EvaluatePharma.

Regeneron relief as Eylea's Panorama widens

March 19, 2018

Regeneron finally has something to cheer about. A win in a franchise-extension trial of Eylea should keep sales of its best-seller growing – at least until 2021, when it will be hit by competition from Novartis's brolucizumab. Eylea's victory came in the Panorama trial in diabetic retinopathy without diabetic macular oedema; the drug is already available for the more severe diabetic retinopathy with macular oedema indication. If approval follows it could add US sales of $700m by 2023, Leerink analysts estimate. Panorama met its first co-primary endpoint, with 58% of patients achieving a two-step or greater improvement from baseline on the diabetic retinopathy severity scale at week 24, versus 6% with sham injection ($p<0.0001$). The other co-primary endpoint evaluates the same measure at 52 weeks. The result will be a relief to Regeneron, whose efforts to expand the Eylea franchise through combinations have fallen flat. Still, in the drug's main indication, wet age-related macular degeneration, Eylea will soon be facing Novartis's blockbuster-in-waiting brolucizumab. Both are looking for a 12-week dosing schedule, so the battle will come down to efficacy and perhaps cost. Regeneron, whose stock climbed just 1% this morning, will have to make the most of Eylea while it still can.

Eylea vs brolucizumab

				Forecast sales ($m)				
Project	Company	Status	Pharma class	2018	2019	2020	2021	2022
Eylea	Regeneron/Bayer	Marketed*	VEGFr kinase inhibitor	6,757	7,108	7,273	7,214	6,985
Brolucizumab	Novartis	Filing due by end 2018	Anti-VEGF antibody fragment	-	153	434	693	991

**For wet AMD, macular oedema following retinal vein occlusion, diabetic macular oedema, diabetic retinopathy with macular oedema*
Source: EvaluatePharma.

SelectMDx selected for guideline inclusion

March 19, 2018

Having a product included in heath society guidelines can be an important contribution to the fortunes of smaller medtech companies, and Mdxhealth has received just such a boost from the European Association of Urology. The group has recommended Mdxhealth's SelectMDx, a urine test that helps identify patients at increased risk of aggressive prostate cancer, for use in asymptomatic men who have a high prostate-specific antigen (PSA) score. The company's stock is up 12% on the Brussels exchange so far today. The decision will almost certainly increase sales of the test in Europe, and it will also help drive payer adoption, Mdxhealth says. It might spur SelectMDx's inclusion in US guidelines at some point, too, and the US is the larger market – last year the company performed 8,600 SelectMDx tests here compared with 3,100 in Europe, according to Berenberg. The analysts add that around two million abnormal PSA test results occur in Europe each year and model a price for SelectMDx of around €300 ($368) per test.

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