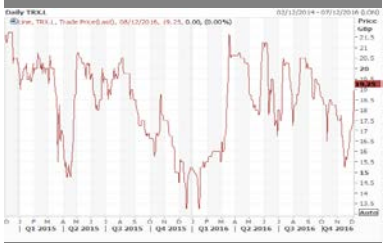
hardman&co

Pharmaceuticals & Biotech



Source: Eikon Thomson Reuters

Market data	
EPIC/TKR	TRX
Price (p)	19.5
12m High (p)	22.5
12m Low (p)	12.7
Shares (m)	760.1
Mkt Cap (£m)	148.2
EV (£m)	134.7
Free Float*	34%
Market	AIM

**As defined by AIM Rule 26*

Description

TRX is a medical device company in regenerative medicine. Its patented dCELL technology removes DNA, cells & other material from animal/human tissue leaving an acellular tissue scaffold, not rejected by the body, which can then be used to repair diseased or worn out body parts. Its products have multiple applications.

Company information

CEO	Antony Odell
CFO	-
Chairman	John Samuel

+44 (0)330 430 3052
www.tissueregenix.com

Key shareholders

Directors	6.9%
Invesco	27.8%
Woodford IM	18.3%
Techtran Group	13.6%
Baillie Gifford	7.0%
Jupiter AM	4.6%

Next event

1H-17	CE Mark mOrthoPure XT
1H-17	OrthoPure XT EU launch
May-17	Final results

Analysts

Martin Hall 020 7148 1433
mh@hardmanandco.com
Dorothea Hill 020 7148 1433
dmh @hardmanandco.com
Gregoire Pave 020 7148 1434
gp @hardmanandco.com

Tissue Regenix

Accounting period change: Not simply 11/12ths

TRX has a broad portfolio of regenerative medicine products developed from decellularised human and porcine tissues for the wound care, orthopaedics, and cardiac markets. Sales of DermaPure have continued to gain traction in the US following launch in 2014 – growth in the first half of 2016 was +128%. Meanwhile, progress towards regulatory approval of the orthopaedics products continues apace, particularly in Europe, which will aid FDA approval in coming years. TRX is well placed to deliver on its strategy, with launch of OrthoPure XT in Europe expected during the first half of 2017.

- **Interims**: Underlying DermaPure sales grew +128% to £631k in the six months to July 2016, a little less than expected due to uneven buying patterns common to MedTech companies. But this was offset by lower than expected operating costs despite the large investment being made in marketing and R&D.

- **Regulatory:** Significant regulatory progress has been achieved in 2016. SurgiPure achieved 510(k) market clearance and is the Company's first FDA approval. Following positive clinical trial results, CE Mark of OrthoPure XT is expected during the next few months, for a European launch in 1H 2017.

- **Forecasts:** TRX is changing its accounting reference date from January to December, in line with its international MedTech peers. However, because there is a traditional bias to sales in the last month of the financial year, this move has a disproportionate effect on the 11-month reporting period for 2016.

- **Risks:** Clinical and regulatory (ongoing clinical trials in order to achieve approvals), financial (further funding for OrthoPure US trial costs but these could be through partnerships), and commercial (roll out of DermaPure, SurgiPure and OrthoPure) but mitigated by use of a hybrid sales strategy.

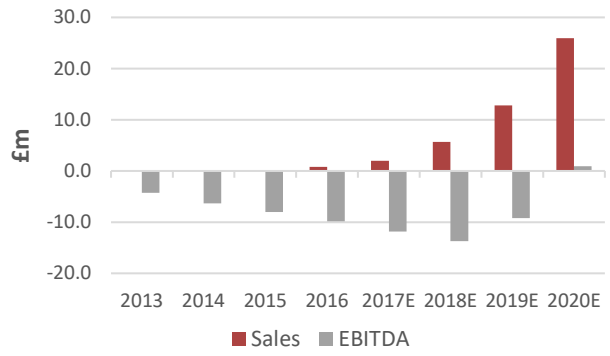
- **Investment summary:** TRX is building commercial momentum through three clear value drivers: Good early sales of DermaPure (chronic wounds), CE Mark for the OrthoPure XT, tendon product, and launch of SurgiPure (hernia repair). This is de-risking the business for investors, but also drawing the attention of potential acquirors. Our DCF valuation remains 32p per share, heavily influenced by near-term R&D and marketing investment.

Financial summary and valuation

Fiscal year (£000)	*2014	*2015	*2016	+2016E	++2017E	++2018E
Sales	6	100	816	1,300	5,567	13,124
R&D	-3,356	-3,296	-3,676	-5,270	-8,000	-8,000
Underlying EBIT	-6,483	-8,189	-10,106	-11,540	-13,940	-9,184
Reported EBIT	-6,577	-8,369	-10,242	-11,815	-14,236	-9,500
Underlying PTP	-6,209	-8,021	-9,893	-11,418	-13,866	-9,129
Statutory PTP	-6,303	-8,201	-10,029	-11,694	-14,162	-9,445
Underlying EPS (p)	-0.9	-1.2	-1.3	-1.45	-1.7	-1.0
Statutory EPS (p)	-0.9	-1.2	-1.3	-1.48	-1.7	-1.1
Net (debt)/cash	18,483	10,257	19,907	7,600	11,942	1,682
Capital increases	8	5	19,019	0	20,000	0
P/E (x)	-	-	-	-	-	-
EV/sales (x)	-	-	-	-	24.2	10.3

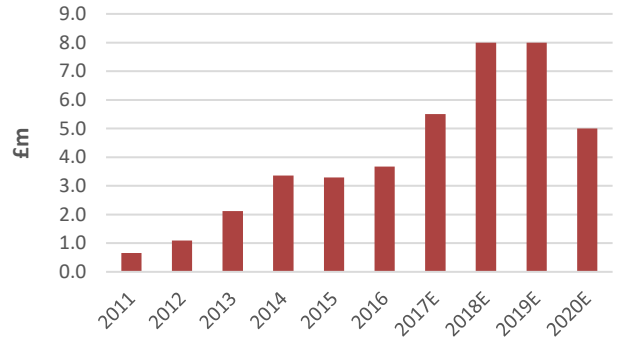
**Year to January; + 11-months to December (current); ++Year to December*
Source: Hardman & Co Life Sciences Research

Sales & EBITDA



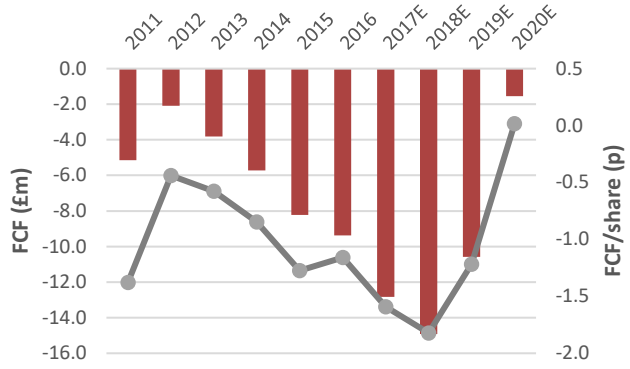
- DermaPure launched in US in 2014 for the in-patient hospital market segment for acute and chronic wounds
- SurgiPure XD 510(k) approval in the US (9th March) was a significant regulatory milestone
- European launch of OrthoPure XT through distributor model in 2017 and OrthoPure HM/HT in the US in 2017
- CardioPure HV European launch expected in 2017 through distributor model

R&D investment



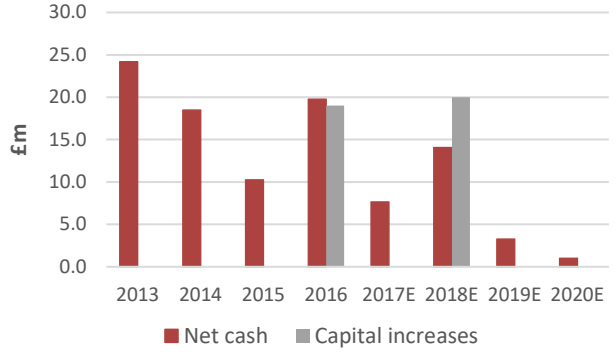
- Cumulative investment in R&D since 2006 has been ca.£19.7m
- Funds will be used to complete processes to achieve clearance for human versions of OrthoPure HM/HT for meniscus and ligament repair in the US
- Costs of PMA/510(k) studies for porcine meniscus and ligament products commencing 2018 included in model

Free cashflow



- Despite cash burn increasing through 2018, the investment is creating long term value in the business
- Investment to date has demonstrated the application of dCELL process to multiple clinical settings
- Clinical applications are all in areas of high unmet medical/clinical need; namely chronic and acute/complex wounds, sports medicine and cardiac valves
- Cashflow significantly improves once sales reach £20m

Net cash & Capital increases



- Since AIM admission in 2010, £47.2m (£49.5m gross) has been raised to fund the business
- £19m (£20m gross) was raised in January 2015 to commercialise DermaPure in US, to launch SurgiPure XD (porcine hernia patch in US), and to fund the development and working capital requirements for human meniscus and ligament products (OrthoPure HM and HT) in the US
- Forecasts assume a further raise of £20m to expand commercial opportunities in the US and EU

Source: Company data; Hardman & Co Life Sciences Research

Interim results

DermaPure sales traction in the US…

…and considerable regulatory progress

Tissue Regenix made considerable progress in the six months to July 2016. On the operational side, sales rose +128% to £631k (£252k) with continued adoption of DermaPure in the US. On the development front, substantial progress with OrthoPure XT clinical trials has improved the commercial launch timetable, and SurgiPure XD became TRX's first product to receive FDA approval (510(k)) in the US. Reported numbers, both sales and costs, were affected by the weakness of sterling.

Key features

- **Sales:** DermaPure sales in the US were solely responsible for the £631k reported revenue, an underlying increase of +128%. This figure was lower than our forecast but is expected to pick up in 2H as MedTech products tend to have uneven sales patterns
- **Guidance:** TRX narrowed full-year DermaPure sales guidance to $2.5-3.5m, but this included a benefit, est $0.5m, from new GPO contracts (see page 5), which are unlikely now to have a material effect on the current 11-month fiscal period
- **Gross margin:** The gross margin of 81.1% (75.4%) was considerably better than our forecast, benefitting from the improved volumes
- **Operating costs:** Despite continued investment in R&D and marketing, the overall administrative costs (-£5,900k) were significantly lower than our forecast (-£6,673k), more than mitigating the lower than expected sales
- **R&D investment:** TRX does not report R&D separately at the interim stage, but given the lower overall operating costs we feel that the costs must have been about £0.5m lower than our forecast
- **Pre-tax profit:** The net effect of the differences listed above was that underlying and reported pre-tax profit was better than we had forecast by about £0.6m
- **Cashflow:** The better than expected operating performance was offset by higher than expected working capital requirements
- **Balance sheet:** TRX had net cash of £13.5m at the end of the period. This was lower than expected largely because an anticipated tax credit from HMRC was not received in the period

Lower than anticipated sales were offset by lower than expected costs

Interim analysis

Half-year analysis £'000	1H'16 actual	1H'17 actual	1H'17 forecast	Delta £'000
Sales	252	631	838	-207
COGS	-62	-119	-208	+89
Gross profit	190	512	625	-113
Gross margin	75.4%	81.1%	75.0%	+6.1pp
SG&A	-2,528	-3,653	-3,973	+320
R&D	-1,705	-2,247	-2,700	+453
Underlying EBIT	**-4,043**	**-5,388**	**-6,048**	**+660**
Underlying PBT	**-3,927**	**-5,307**	**-5,978**	**+671**
Reported PBT	-4,017	-5,442	-6,028	+586
Underlying basic EPS (p)	0.50	0.68	0.75	+0.07
Net cash/(debt)	24,887	13,515	13,799	-284

Source: Company reports; Hardman & Co Life Sciences Research

DermaPure® – US Wound Care

Sales progression

Good sales progression in each of the last three 6-month trading periods since launch

Adoption of DermaPure in the US Wound Care market has continued to gain traction, with sales of $891k in the six months to 31st July 2016 compared to $391k during the same period last year, an increase of +128%. While this represents an excellent performance, it was lower than we had anticipated, which we believe was caused by unusual buying patterns. The volume and sales progression for DermaPure for the three six month trading periods since launch can be seen in the following table.

US sales of DermaPure	1H'16	2H'16	1H'17	2H'17E
Average units sold/month	77	165	186	214
Total volume in period	460	988	1,114	1,526
Total US sales ($000)	**391**	**840**	**891**	**1,221**

Source: Hardman & Co Life Sciences Research

Buying patterns

Impact of buying patterns should not be underestimated…

…and will have a disproportionate effect on the current 11-month accounting period

Looking at the sales progression between the first and second half of fiscal 2016, it is easy to understand why we had been expecting a larger sales figure for 1H 2017. However, what is not clear from these numbers is that, consistent with many MedTech companies, sales of DermaPure were also subject to the trend for a large proportion of sales to be made in the final month of the year. We believe that the month of January 2016 accounted for 22% (ca. $200k) of the sales reported for the second half of last year. This has two consequences. First, it may have boosted the figure last year compared to underlying utilisation. Secondly, if there is some excess stocking, it might lead to a 'quiet' period in the early months of the next fiscal period. This will also be important for the current accounting period, as the company is moving to a December year end and it will only be for an 11-month period.

Costs

As sales rise…

…so do commissions…

…to around 37.5%

Remuneration of sales people in the US is linked to sales activity. Therefore, concomitant with reported sales increase sales, commissions also rose from $100k in 1H 2015, 25.5% of sales, to $290k in 1H 2016 (32.5% of sales). For the full year, TRX has stated that it expects this commission rate to rise further, to 37.5%.

Penetration

Tissue Regenix' focus on advocacy and adoption has proven itself, with Medicare coverage available in an additional 10 states – DermaPure is now available for reimbursement in all but a single US jurisdiction.

Outlook

Positive start by DermaPure could be affected by three factors in the second half

Although sales for the six months to July were within the market range, TRX has tightened its revenue guidance to $2.5m-$3.5m for the full year now that there is more visibility following the appointment of more distributors. Our forecasts are towards the lower-end of this range at $2.6m. However, there are three factors to take into consideration. First, TRX is moving to a December year end and the 2016 numbers will be for an 11-month period only. Given that there is a disproportionate sales bias to the last month, it is not simply a case of taking 11/12th of this forecast (see page 8). Secondly, the timing of additional Group Purchasing Organisation (GPO) contracts (see page 5). Thirdly, offsetting these first two points, reported numbers will be boosted significantly by the weakness of sterling.

dCELL® pipeline update

Since reporting FY16 results, TRX has been focusing on regulatory approval of dCELL products for the EU orthopaedics markets.

Recent news flow

News	Month	Details
Board appointment	June '16	Consultant Vascular Surgeon Prof. Homer-Vanniasinkam was appointed NED, bringing clinical expertise to the board
US GPO contract	July '16	Contract with a national US Group Purchasing Organisation for use of DermaPure was secured, improving physician, hospital, and regional market penetration
OrthoPure XT regulatory progress	July '16	Successful data for OrthoPure XT in Europe has accelerated CE mark submission: approval and a US pilot trial submission are expected by 4Q 2016
DermaPure Medicare coverage	Sept '16	Coverage of a further 10 states was gained, with DermaPure now eligible for Medicare reimbursement in outpatient settings in 93% of traditional Medicare beneficiaries

Source: Hardman & Co Life Sciences Research

Wound Care

US

DermaPure

Expansion of DermaPure range…

The product range has been expanded to include larger and thicker sizes of DermaPure for additional wound care applications. TRX is looking to further develop this product line for the dentistry and burns markets – progress in these areas is expected to be released during the early part of 2017.

…plus GPO contracts that provide access to in-patients…

…will increase sales traction…

In the same way that TRX has been building on its Medicare coverage in the US, it has also been marketing to GPOs, which negotiate contracts and pricing with Integrated Delivery Networks (IDN) on behalf of their members (e.g. physicians, acute care hospitals, regional health systems). GPOs provide access to the large in-patient market, to which DermaPure is well suited as, being a single use product, it has a significant clinical advantage. The likely impact of this is two-fold. First, it simplifies the overall US sales process, making it much more unified. Secondly, it is expected to accelerate sales growth through increased US market penetration. Although there are many GPOs, TRX is targeting initially those that have the greatest coverage.

Additional GPO contracts had been expected to generate ca.$0.5m to 2016…

This strategy was first successful in July 2016, when TRX signed its first GPO on a three year contract, which will contribute to this year's results. However, when providing the market with revised guidance for full year DermaPure sales of $2.5-3.5m in its interim report, we estimate that TRX had included ca.$0.5m for additional GPO contracts that were expected to be signed in the second half of the year. In the absence of any further contracts, guidance would equate to $2.0-3.0m.

…but have been awarded too late in the period and now look set to benefit fiscal 2017

While news (6th December) of the award of a second GPO contract, with Premier Inc, is very positive, we feel that it has come through too late in the reporting period to have a material impact on 2016 forecasts. Therefore, we are taking the prudent view that the benefit from GPO contracts will be seen from 2017 (year to December 2017).

SurgiPure

Launch delayed to focus resources

FDA approval via the 510(k) route was achieved for SurgiPure XD in March 2016 and represents a significant step for TRX, being the first time the FDA has reviewed the full dCELL process. However, given the enormous progress that has been made with the orthopaedic product range, launch of SurgiPure XD has been delayed until the second half of 2017.

Europe

DermaPure

Launch of DermaPure in Europe will be achieved through TRX's joint venture entity, GBM-V, tissue bank in Rostock, Germany; TRX is negotiating currently regulatory approval for applications of dCELL to human tissues.

Orthopaedics

The orthopaedics pipeline, targeted at tissue repair within the Sports Medicine market, consists of four products – two each derived from human and porcine (xenografts) – focused on meniscus tears and tendon repairs. The aim is to offer surgeons a readily available and reliable 'off the shelf' graft, stored at room temperature, that requires minimal preparatory work prior to implantation.

Orthopaedics portfolio

Product	Origin	Indication
OrthoPure HM	Human	Meniscus
OrthoPure XM	Porcine	Meniscus
OrthoPure HT	Human	Tendon (ACL)
OrthoPure XT	Porcine	Tendon (ACL)

Source: Tissue Regenix; Hardman & Co Life Sciences Research

Europe

Positive EU trial data for OrthoPure XT…

TRX has been encouraged by very positive preliminary data from the single arm, multi-centre clinical trial with OrthoPure XT in Europe (ClinicalTrials.gov identifier: NCT02540811), with outcomes at six months' post-operation showing a significant improvement when compared to the current gold standard – tendon autografts (see our August report: '*Major progress towards orthopaedics approvals*'). Consequently, the company filed via its Notified Body for CE Mark. However, a recent company update suggests that approval will now be in 2017, but this will not alter the planned launch timetable which will still be before the end of 1H 2017.

…for launch in 1H'17

A trial with OrthoPure XM completed earlier in the year. Results indicated that the implant was biocompatible and integrated with patient tissue. Moreover, surgeons involved in the study suggested some revisions to the product that will result in a single product format. From a long-term commercial perspective, a single commercial format will have obvious advantages. Therefore, TRX announced its intention to commence a second EU clinical trial to supersede the initial study.

US

OrthoPure

A 510(k) route in the US is now possible

A US Orthopaedics subsidiary business is being established. A VP Orthopaedics North America was appointed in February 2016, along with a US based clinical advisory board of five experts spanning a range of sports medicine specialities. This area of business will expand in 2017, especially if a 510(k) approval route is possible for OrthoPure XM, which would increase the speed with which it reaches the market.

Cardiac

Europe

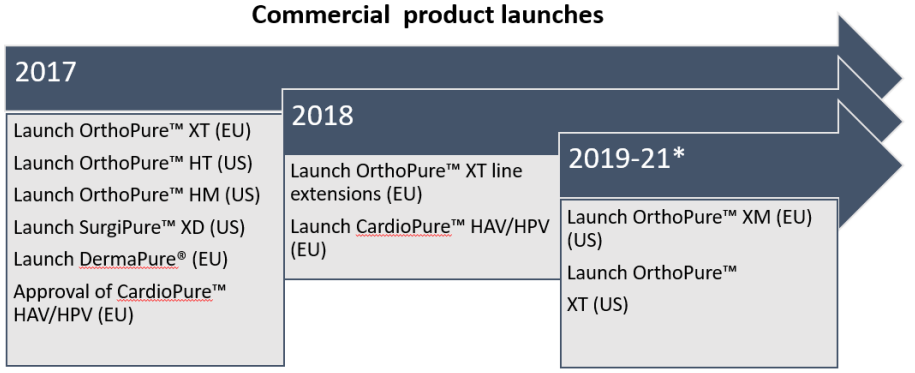
CardioPure® heart valves, generated using dCELL technology on human tissue, are expected to be produced from second half of 2017 through joint venture entity GBM-V. Regulatory discussions are still underway. Minimal costs are associated with this business unit since operational costs are mainly incurred centrally.

Expected progress going forward

Significant commercial milestones expected in 2017…

Development and regulatory progress so far in 2016 suggests that Tissue Regenix will achieve significant commercial milestones in the coming 12 months. The most significant will be market launch of OrthoPure XT in Europe, expected in the first half of 2017, leading to substantial improvement to company cashflows as revenues are received from a second business area. The joint venture GBM-V tissue bank in Germany is likely to produce regulatory progress for the human tissue products in the European market, particularly DermaPure and CardioPure heart valves, with launches expected to begin within the next 12 months.

Tissue Regenix – Product portfolio



**Currently unfunded*
Source: Tissue Regenix

…boosted by the new GPO contract and expansion of product range into related areas

In the US, we are likely to see additional sales of DermaPure products as the benefits from GPO contracts emerge and as they are adopted by additional markets for dentistry and burns applications, particularly towards the end of the calendar year 2017. Furthermore, developments in human tissue applications for orthopaedic use in sports medicine are expected, making 2017 an important year for Tissue Regenix.

Research collaborations

Work continues with The University of Leeds and the Pontificial Catholic University of Parana, Brazil.

Change of accounting period

11-month results will not be truly representative of the progress made

The next set of results from Tissue Regenix will be complicated by the fact that the company has announced its intention to change its accounting reference date. Until now, TRX has reported results for 12-month periods ending 31st January each year. From 2016, TRX will report results for 12 months ending 31st December, bringing it more into line with its international MedTech peers. However, for 2016, the accounts will represent only 11 months – from 1st February to 31st December 2016.

Not simply 11/12ths

Tightened DermaPure sales range included some benefit from GPO contract

As mentioned earlier, the company tightened guidance for DermaPure sales for the 12 months to 31st January 2017 to $2.5-3.5m. However, two underlying factors need to be taken into consideration. First, being in the final month of trading, award of the Premier Inc GPO contract has come too late to have a material effect on sales expectations for 2016, effectively bringing guidance down to $2.0-3.0m. Secondly, buying patterns for MedTech companies are notorious for being biased towards the last month of each financial year. Indeed, we believe that ca.$200k out of the $891k/$1,231k reported sales for 2H/FY 2016 were recorded in January 2016 – equating to 22% and 16% respectively. By extrapolation, given that underlying DermaPure sales are growing at over 100%, an estimated ca.$400k will drop out of the current 11-month accounting period, further lowering guidance to $1.6-2.6m.

Hardman is taking a prudent view for the 11-month trading period and has nothing in for the GPO contract

Eleven month forecasts

Accounting period (£000)	12m to Jan 2016	12m to Jan 2017E	11m to Dec 2016E
GBP:USD	1.523	1.35	1.34
Sales	**816**	**1,600**	**1,300**
COGS	-154	-320	-280
Gross profit	662	1,280	1,020
Gross margin	81.1%	80.0%	78.5%
Operating costs	-10,768	-13,575	-12,560
Underlying EBIT	**-10,106**	**-12,540**	**-11,540**
Share based costs	-136	-276	-276
Reported EBIT	-10,242	-12,816	-11,815
Net financials	213	134	122
Underlying PBT	**-9,893**	**-12,407**	**-11,418**
Reported PBT	-10,029	-12,683	-11,694
Weighted average shares (m)	748.2	751.7	750.9
Underlying basic EPS (p)	**-1.25**	**-1.57**	**-1.45**
Statutory basis EPS (p)	-1.27	-1.61	-1.48
Net cash	19,907	6,655	7,400

Source: Hardman & Co Life Sciences Research

The disproportionate effect of the January sales is also expected to have an impact on the gross margin, which we expect to emerge at 78.5% for the 11-month period, compared to 80% guidance for the FY to January 2017, given in the interim report.

Estimated net cash at 31st December 2016 = £7.4m

The average cash burn of the group is around £1m per month. The lower number of months in this reporting period will benefit the cashflow and cash balance at 31st December. However, given that January is the least loss-making month of the trading year, not all of the potential £1m saving will fall through the cashflow to net cash.

Currency

Sterling weakness affects both sales and costs

Forecasts for the year to January 2016 and beyond are based on an average GBP:USD rate of 1.35. The rate for the 11-month period to December 2016 looks set to be 1.34. This rate has a direct effect on translation of reported sales, COGS and marketing costs associated with DermaPure, which are all based in US$.

Detailed financial forecasts*

**All forecasts in this section remain on a 12-month basis to end January for comparative purposes*

- **Sales** – Compared to our previous forecast, DermaPure sales have been reduced from £2.2m to ca.£1.6.0m reflecting the lower than expected first half sales and the late awarding of additional GPO contracts
- **Costs** – Higher gross margins and lower than expected operating costs offset much of the reduction is sales forecast

Profit & Loss account

Year end Jan* (£000)	2013	2014	2015	2016	†2017E	††2018E	††2019E	††2020E
GBP:USD	-	-	-	1.52	1.35	1.35	1.35	1.35
Sales	**49**	**6**	**100**	**816**	**1,600**	**5,567**	**13,124**	**25,058**
COGS	0	0	-32	-154	-320	-2,270	-3,539	-6,430
Gross profit	**49**	**6**	**68**	**662**	**1,280**	**3,297**	**9,585**	**18,629**
Gross margin				81.1%	80.0%	59.2%	73.0%	74.3%
SG&A	-2,257	-3,133	-1,766	-3,672	-8,075	-8,905	-10,420	-12,415
R&D	-2,122	-3,356	-3,296	-3,676	-5,500	-8,000	-8,000	-5,000
Underlying EBITDA	**-4,256**	**-6,359**	**-8,038**	**-9,861**	**-12,295**	**-13,608**	**-8,835**	**1,213**
Depreciation & Amortisation	-74	-124	-151	-245	-245	-332	-348	-366
Licensing/Royalties	0	0	0	0	0	0	0	0
Other income	0	0	0	0	0	0	0	0
Underlying EBIT	**-4,330**	**-6,483**	**-8,189**	**-10,106**	**-12,540**	**-13,940**	**-9,184**	**847**
Share based costs	-82	-94	-180	-136	-276	-296	-316	-336
Exceptional items	0	0	0	0	0	0	0	0
Statutory operating profit	-4,412	-6,577	-8,369	-10,242	-12,816	-14,236	-9,500	511
Net financials	440	274	168	213	133	74	54	9
Pre-tax profit	**-3,890**	**-6,209**	**-8,021**	**-9,893**	**-12,407**	**-13,866**	**-9,129**	**856**
Exceptional items	0	0	0	0	0	0	0	0
Reported pre-tax	-3,972	-6,303	-8,201	-10,029	-12,683	-14,162	-9,445	520
Tax payable/credit	474	710	620	527	588	879	1,279	1,279
Underlying net income	**-3,416**	**-5,499**	**-7,401**	**-9,366**	**-11,819**	**-12,986**	**-7,850**	**2,135**
Statutory net income	-3,498	-5,593	-7,581	-9,502	-12,095	-13,282	-8,166	1,799
Period-end shares (m)	653	653	654	760.1	760.1	760.1	760.1	760.1
Weighted average shares (m)	635	636	637	748.2	751.7	760.1	760.1	760.1
Fully diluted shares (m)	653	673	676	789.7	793.1	801.6	801.6	801.6
Underlying basic EPS (p)	**-0.54**	**-0.87**	**-1.16**	**-1.25**	**-1.57**	**-1.71**	**-1.03**	**0.28**
Statutory Basic EPS (p)	-0.55	-0.88	-1.19	-1.27	-1.61	-1.75	-1.07	0.24
U/l Fully-diluted EPS (p)	**-0.52**	**-0.82**	**-1.10**	**-1.19**	**-1.49**	**-1.62**	**-0.98**	**0.27**
Stat. Fully-diluted EPS (p)	-0.54	-0.83	-1.12	-1.20	-1.52	-1.66	-1.02	0.22
DPS (p)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Growth								
Sales	n/a	-88%	1567%	716%	96%	248%	136%	91%
Operating ratios								
Cost of goods	-	-	32.0%	18.9%	20.0%	40.8%	27.0%	25.7%
Gross margin	-	-	-	81.1%	80.0%	59.2%	73.0%	74.3%
SG&A	-	-	-	450%	505%	160%	79%	50%
R&D	-	-	-	450%	344%	144%	61%	20%

††Data is for the 12-month period to end January, but will effectively become the new forecast for calendar years 2017, 2018 and 2019

†Refer to Page 8 for analysis of the 11-month trading period to end December 2016

Source: Hardman & Co Life Sciences Research

Balance sheet

- **Net cash** –Our forecasts indicate that net cash would be around £6.9m at the end of January 2017; but at 31st December, the new reporting year end, we believe that it will be nearer £7.4m with one month lower cash burn
- **Investment** – Our forecasts assume that TRX continues to invest behind its pipeline of products which include appropriate PMA/510(k) studies with OrthoPure XM and XT in the US which will cost around $15m (£11m)
- **Fund raise** – Based on current expectations, we would anticipate a further fund raise during fiscal 2018 for further investment in the clinical programmes for regulatory approval and working capital for commercialisation. Alternatively, this could come potentially from a licensing deal

Balance sheet

@31st Jan (£000)	2013	2014	2015	2016	2017E	2018E	2019E	2020E
Shareholders' funds	24,466	18,978	11,578	21,239	9,144	15,862	7,695	9,495
Cumulated goodwill	0	0	0	0	0	0	0	0
Total equity	24,466	18,978	11,578	21,239	9,144	15,862	7,695	9,495
Share capital	3,264	3,267	3,271	3,801	3,801	3,801	3,801	3,801
Reserves	21,202	15,711	8,307	17,438	5,343	12,061	3,894	5,694
Capitalised R&D	3,355	5,632	7,450	9,239	12,283	16,879	20,558	20,747
Long-term loans	0	0	0	0	0	0	0	0
Short-term loans	0	0	0	0	0	0	0	0
less: Cash & securities	24,206	18,483	10,257	19,907	6,655	11,942	1,682	519
Invested capital	**3,615**	**6,127**	**8,771**	**10,571**	**14,771**	**20,799**	**26,571**	**29,722**
Fixed assets	238	472	435	901	1,438	2,173	3,158	4,458
Intangible assets	0	0	0	0	0	0	0	0
Capitalised R&D	3,355	5,632	7,450	9,239	12,283	16,879	20,558	20,747
Inventories	0	0	34	64	198	540	1,280	2,615
Trade debtors	*2*	*0*	*40*	*398*	*780*	*491*	*1,280*	*2,615*
Other debtors	*705*	*1,127*	*1,907*	*1,927*	*1,927*	*1,927*	*1,927*	*1,927*
Tax liability/credit	*-54*	*-55*	*-73*	*-72*	*0*	*0*	*0*	*0*
Trade creditors	*-205*	*-368*	*-312*	*-501*	*-1,041*	*-393*	*-896*	*-1,569*
Other creditors	*-426*	*-681*	*-710*	*-1,385*	*1,666*	*2,025*	*2,311*	*2,973*
Debtors less creditors	22	23	852	367	852	1,206	1,576	1,902
Invested capital	**3,615**	**6,127**	**8,771**	**10,571**	**14,771**	**20,799**	**26,571**	**29,722**

Source: Hardman & Co Life Sciences Research

Key metrics

@31st Jan (£000)	2013	2014	2015	2016	2017E	2018E	2019E	2020E
Net cash/(debt)	**24,206**	**18,483**	**10,257**	**19,907**	**6,655**	**11,942**	**1,682**	**519**
Net debt/equity (%)	98.9%	97.4%	88.6%	93.7%	72.8%	75.3%	21.9%	5.5%
After-tax ROIC	-94.5%	-89.8%	-84.4%	-88.6%	-80.0%	-62.4%	-29.5%	7.2%
Interest cover (x)	-	-	-	0.0	0.0	0.0	0.0	0.0
Dividend cover (x)	-	-	-	0.0	0.0	0.0	0.0	0.0
Cap-ex/depreciation (x)	2.1	2.9	0.8	2.9	2.7	3.2	3.8	4.6
Cap-ex/sales (%)	316.3%	5966.7%	114.0%	87.1%	53.3%	19.2%	10.2%	6.7%
Net asset value/share (p)	3.9	3.0	1.8	2.8	1.2	2.1	1.0	1.2
Stock days	-	-	-	29	60	55	50	50
Debtor days	-	-	-	178	50	50	50	50
Creditor days	-	-	-	1,187	45	40	35	30

Source: Hardman & Co Life Sciences Research

Cashflow

- TRX has utilised increasing levels of cash over each of the last four years as it has ramped up both marketing and development capabilities across a broad pipeline of product families
- The incremental increase (ca.£9-10m estimate) in R&D investment in 2017 and 2018 is to fund clinical studies for OrthoPure XM/XT, which drops straight through the cashflow statement
- Free cash outflows are forecast to continue to rise until DermaPure becomes sufficiently well established to begin to offset the underlying burn
- Our forecasts do not assume any revenues from OrthoPure XM/XT in the US. In the event that TRX markets OrthoPure XM/XT on its own in the US, there would likely to an increase in investment and working capital towards the end of the decade. In contrast, a decision to out-license or partner the product could result in an up-front milestone receipt

Cashflow

Year end Jan (£000)	2013	2014	2015	2016	2017E	2018E	2019E	2020E
Operating profit/(loss)	-4,330	-6,483	-8,189	-10,106	-12,540	-13,940	-9,184	847
Depreciation	74	124	151	245	316	332	348	366
Amortisation	0	0	0	0	0	0	0	0
Inventories	0	0	-34	-30	-134	-342	-740	-1,335
Working capital	-86	238	-213	266	-700	-359	-286	-662
Share based payment	0	0	0	0	0	0	0	0
Company op cashflow	**-4,342**	**-6,121**	**-8,285**	**-9,625**	**-13,059**	**-14,309**	**-9,861**	**-784**
Net interest	440	274	168	213	133	74	54	9
Tax paid/received	239	474	0	745	527	588	879	1,279
Operational cashflow	-3,663	-5,373	-8,117	-8,667	-12,399	-13,647	-8,927	504
Capital expenditure	-155	-358	-114	-711	-853	-1,067	-1,333	-1,666
Sale of fixed assets	0	0	0	0	0	0	0	0
Free cashflow	**-3,818**	**-5,731**	**-8,231**	**-9,378**	**-13,252**	**-14,713**	**-10,260**	**-1,162**
Dividends	0	0	0	0	0	0	0	0
Other investments	0	0	0	0	0	0	0	0
Cashflow after investments	**-3,818**	**-5,731**	**-8,231**	**-9,378**	**-13,252**	**-14,713**	**-10,260**	**-1,162**
Share repurchases	0	0	0	0	0	0	0	0
Share issues	3	8	5	19,019	0	20,000	0	0
Change in net debt	**-3,815**	**-5,723**	**-8,226**	**9,650**	**-13,252**	**5,287**	**-10,260**	**-1,162**
Opening net cash	28,021	24,206	18,483	10,257	19,907	6,655	11,942	1,682
Closing net cash	**24,206**	**18,483**	**10,257**	**19,907**	**6,655**	**11,942**	**1,682**	**519**
Hardman FCF/share (p)	-0.6	-0.8	-1.3	-1.2	-1.6	-1.8	-1.2	0.1

Source: Hardman & Co Life Sciences Research

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Hardman & Co Research Limited (trading as Hardman & Co)
11/12 Tokenhouse Yard
London
EC2R 7AS
T +44 (0) 207 929 3399

Follow us on Twitter @HardmanandCo

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Hardman & Co

11/12 Tokenhouse Yard
London
EC2R 7AS
United Kingdom

Tel: +44(0)20 7929 3399
Fax: +44(0)20 7929 3377

www.hardmanandco.com