**Market data**

EPIC/TKR	COS
Price (p)	5.00
12m High (p)	8.59
12m Low (p)	4.25
Shares (m)	324.5
Mkt Cap (£m)	16.2
EV (£m)	7.1
Free Float*	66%
Market	AIM

*As defined by AIM Rule 26

Description

COS develops, manufactures and supplies medical grade collagen biomaterials, tissues and devices. Its products are used in research, *in vitro* diagnostics, medical devices and regenerative medicine. The company provides R&D and contract services to a global and diverse customer base.

Company information

CEO	Jamal Rushdy
CFO	Gill Black
Chairman	David Evans

+44 141 648 9100

www.collagensolutions.co.uk**Key shareholders**

Directors + management	17.3%
Seneca	13.2%
Calculus Capital	9.5%
Livingbridge	4.6%
Helium Rising Stars	4.0%
Rathbones IM	4.0%

Diary

30 Aug-17	AGM
1H-18	CM CE Mark filing
Dec-17	Interim results

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Collagen Solutions

Delivering biomaterials for revenue growth

Collagen Solutions is a biomaterials company developing and manufacturing medical grade collagen components for use in medical devices, research, and regenerative medicine. A number of investment initiatives have been introduced recently to accelerate the rate of growth 5x by 2021. These include building global commercial infrastructure and developing a pipeline of finished medical devices, such as ChondroMimetic scaffold for repair of small cartilage lesions. Recent financial results have highlighted the progress in revenue growth, and 2018 looks set to benefit from the launch of its first proprietary finished device, ChondroMimetic.

- **Strategy:** Management has embarked on an investment strategy through a series of initiatives to increase the growth opportunities. This strategy is moving COS from a reliable quality collagen supplier to one that also has proprietary products that will move it into profitability, and cash generative, at a faster pace.
- **Growth:** Sales are currently being driven by the core biomaterials business, with underlying growth of +17% in 2017, reflecting new marketing initiatives. Growth is expected to accelerate in future years following the signing of nine new contracts and through the introduction of high margin proprietary devices.
- **Finished device pipeline:** Led by ChondroMimetic for articular cartilage repair – COS has embarked on a follow-up study with 15/17 patients implanted with the device eight years ago, to support re-submission for CE Mark at the end of 2017. Two additional products are in the pipeline: for wound and bone repair.
- **Risks:** Management has re-iterated its aspirational, but achievable, target to grow sales five-fold within five years (starting fiscal 2016), equating to a demanding +38% CAGR. Time to get CE Mark again for ChondroMimetic is key. Management highlighted also a potential contract risk in Korea for fiscal 2019.
- **Investment summary:** Results provided clear evidence that the company has responded well to its strategic transition. Investment in marketing initiatives and new opportunities (China JV, Orthomimetics, plus other new products) continues to build a pipeline of strategic relationships that is expected to drive long term growth. The recent capital increase and debt financing leaves COS well positioned to turn EBIT profitable and cashflow break-even in fiscal 2020.

Financial summary and valuation

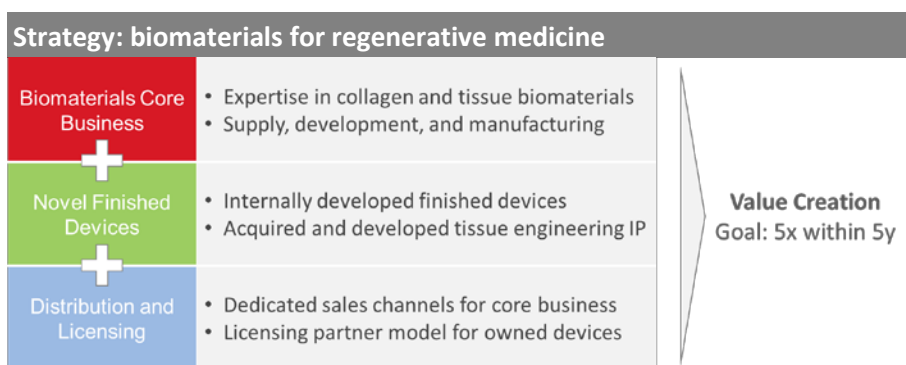
Year end March (£000)	2015	2016	2017	2018E	2019E	2020E
Sales	973	3,130	3,946	5,200	7,230	9,785
Underlying EBITDA	-663	-374	-1,209	-1,170	30	1,603
Underlying EBIT	-793	-721	-1,658	-1,880	-701	853
Underlying PBT	-920	-983	-1,790	-2,141	-1,030	665
Statutory PBT	-1,102	-866	-1,614	-2,241	-1,130	565
Underlying EPS (p)	-0.98	-0.64	-1.04	-0.72	-0.38	0.11
Statutory EPS (p)	-1.17	-0.57	-0.95	-0.75	-0.41	0.08
Net cash/(debt)	3,282	2,384	7,072	3,471	438	-508
Capital increase	5,422	207	6,462	0	0	0
P/E (x)	-5.1	-7.8	-4.8	-7.0	-13.2	44.1
EV/sales (x)	9.4	2.9	2.3	1.8	1.3	0.9
EV/EBITDA (x)	-	-	-	-	-	5.7

Source: Hardman & Co Life Sciences Research

Investment case

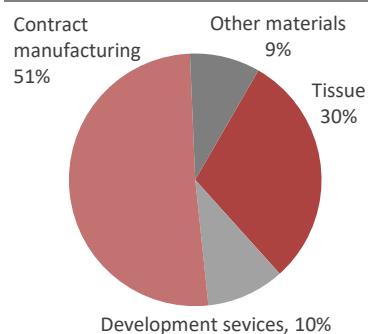
Strategy and offering

Collagen Solutions is a biotechnology company focused on delivering and developing regenerative biomaterials. COS has two segments: its core business is contract manufacture, development services, and B2B supply of medical-grade tissue components; the ‘finished device’ segment is in the development phase, with a portfolio of proprietary medical devices. The company is growing, with a focused, more international, strategy having been recently laid down by new leadership.



Source: Collagen Solutions

Core business sales (FY 2017)



Source: Hardman & Co Life Sciences Research

Biomaterials core business

The core biomaterials segment is driving the business: 2017 sales were £3.95m. Collagen and pericardium tissue components are sold to medical device manufacturers, regenerative medicine companies, and the research sector; for example, collagen scaffolds are used in tissue engineering or as part of medical devices for cardiovascular, orthopaedic and woundcare applications.

The raw biomaterial is mostly sourced from bovine abattoirs in New Zealand and Australia, a distinguishing feature due to the high quality of the resulting components. Products are distributed by specialised distributors via a catalogue and website (to the research market) and through direct sales and channel partners.

‘Finished device’ pipeline

Cartilage repair

Collagen Solution’s most commercially advanced proprietary device is the patent-protected ChondroMimetic® Osteochondral Scaffold. It is designed to promote repair of cartilage defects, such as those occurring in the knee joint, which do not heal well naturally due to a lack of blood supply. The market is estimated at \$500m-\$1bn worldwide, with the target being a reduction in total joint replacements.

ChondroMimetic is both minimally invasive and also relatively easy to insert. It is an off-the-shelf, bi-layer ‘sponge’ generated from natural collagen that expands into the defect site. Since ChondroMimetic was acquired in 2015, COS has been progressing it towards re-gaining CE Mark: it originally received CE Mark in 2008 following a successful clinical study with 17 patients in Hungary. A retrospective follow-up is underway with 15 of these patients: 14 have already been re-scanned to assess cartilage repair eight years’ on. This will provide long-term data that is a significant differentiator from competitors. CE Mark submission is expected early in 2018.

ChondroMimetic™



Source: Collagen Solutions

Fibrillar Collagen



Source: Collagen Solutions

Bone Graft Substitutes



Source: Collagen Solutions

Wound treatment

The second proprietary product is a pre-prepared fibrillar collagen for wound care and burns. The key advantage over existing commercialised products is that it is supplied as a pre-filled syringe, ready for use. The company arrived at this system after discussions with surgeons and industry experts – management believes that this product could address 40% of the current \$1bn fibrillar collagen market. The design is currently being optimised, with intended launch in late 2018/early 2019.

Bone regeneration

The market for bone graft substitutes is well established and valued at ca.\$1.7bn. However, there are distinct disadvantages with some leading products, and COS aims to address these and enter the market with a highly differentiated offering for bone regeneration. Management is aiming to commence pre-clinical trials later this year with a view to having regulatory approval by mid-2019.

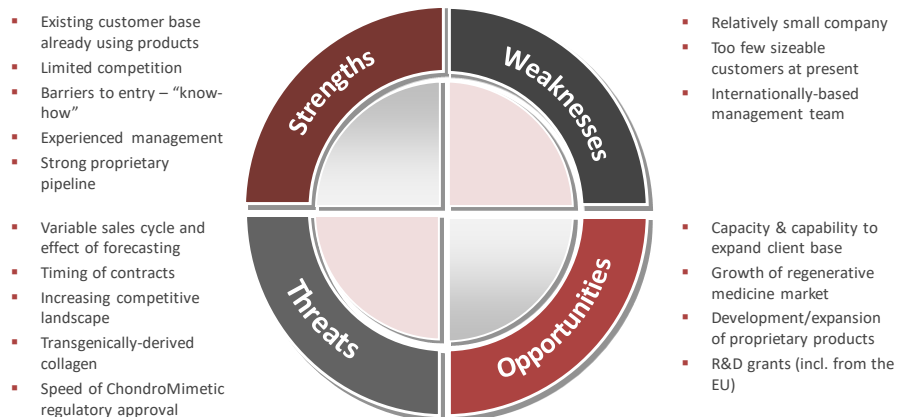
Growth trajectory

In 2016, management announced its key aim to increase revenues by five times in five years: this works out as reaching £15.5m by 2021 (+38% CAGR). Two thirds are likely to be driven by the core business, and several initiatives have been established to organically accelerate performance. These include sales channel development, marketing, and overall operational improvements, which are already generating new opportunities, a broader global account base, and delivering early revenue growth. In 2017, underlying sales increased +17% to £3.95m. Further growth is anticipated in the current year following the recent signing of nine new contracts.

Investment conclusion

Collagen Solutions is targeting a multi-billion regenerative medicine market with established biomaterials products, both for medical research and for treatment. In the mid- to long-term, it will deliver value through proprietary medical devices that harness its scientific know-how. The company is at an interesting juncture, with new management further internationalising the business, and with a possible product launch in 2018. Our forecasts include growth acceleration in 2018, delivering EBITDA profitability in 2018 and setting a new benchmark going forward.

SWOT analysis



Source: Hardman & Co Life Sciences Research

Financial summary

Forecast summary						
Year end March (£m)	2015	2016	2017	2018E	2019E	2020E
Profit & Loss:						
Sales	973	3,130	3,946	5,200	7,230	9,785
COGS	-214	-811	-984	-1,302	-1,771	-2,393
SG&A	-1,325	-2,440	-3,722	-4,265	-4,591	-4,893
R&D	-160	-367	-594	-954	-1,013	-1,072
EBITDA	-663	-374	-1,209	-1,170	30	1,603
EBIT	-793	-721	-1,658	-1,880	-701	853
EBIT margin (%)	-	-	-	-36.2%	-9.7%	8.7%
Net interest	-128	-262	-132	-260	-330	-188
Pre-tax profit	-920	-983	-1,790	-2,141	-1,030	665
Tax	-21	-114	-142	-185	-231	-288
Net income	-942	-1,097	-1,932	-2,325	-1,261	377
Weighted av. shares (m)	96.4	171.2	185.8	325.0	332.5	332.5
Underlying EPS (p)	-0.98	-0.64	-1.04	-0.72	-0.38	0.11
Fully diluted EPS (p)	-0.98	-0.64	-1.04	-0.72	-0.38	0.11
Balance sheet:						
Share capital	1,755	1,759	3,288	3,368	3,448	3,528
Reserves	11,099	12,137	16,998	15,493	14,052	14,249
Provisions	285	253	222	166	125	94
Debt	109	109	1,906	3,786	2,566	841
/less: Cash	3,391	2,493	8,978	7,258	3,004	333
Invested capital	14,176	14,203	15,786	16,706	17,127	18,320
Net cash/debt	3,282	2,384	7,072	3,471	438	-508
Cashflow:						
Operating profit	-793	-721	-1,658	-1,880	-701	853
Change in working capital	-105	469	-76	-114	-8	7
Tax & interest	-28	-191	-102	-402	-514	-418
Operational cashflow	-1,180	-338	-1,360	-2,106	-1,624	-736
Capital expenditure	-159	-464	-137	-294	-200	-210
Free cashflow	-1,326	-801	-1,497	-2,400	-1,824	-946
Acquisitions	-2,192	-207	-342	-1,200	-1,209	0
Share issues	5,422	207	6,462	0	0	0
Change in net debt	1,790	-898	4,687	-3,600	-3,033	-946
Hardman FCF/sh. (p)	-1.22	-0.20	-0.73	-0.65	-0.49	-0.22

Source: Hardman & Co Life Sciences Research

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