Microbix Biosystems Inc.

6 September 2024

MBX-T: $0.37, MBXBF-OTC: US$0.285

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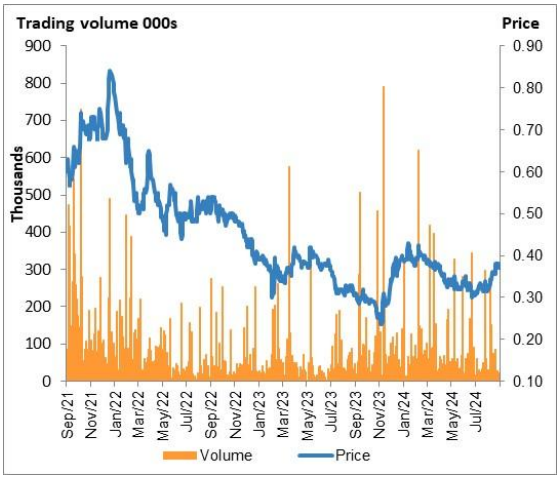
Price	$0.37	Market Cap		$50,581
Target Price	$0.75	Debt		$6,357
Projected Return	103%	Cash		-$12,809
52 Week Range	0.45/0.23	EV ($000s)		$44,129
Basic Shares (000's)	136,705			
FD Shares (000's)*	176,092			
Insiders	13.0%			
Y/E September	**2022**	**2023**	**2024E**	**2025E**
Revenues ($000s)	19,076	16,515	24,430	25,064
EBITDA ($000s)	3,647	1,499	5,499	4,016
Adj. EBITDA** ($000s)	3,647	-2,530	2,083	4,016
FDEPS	0.01	0.00	0.02	0.01
EV/EBITDA	12.1x	29.4x	8.0x	11.0x

*=Assumes conversion of CD; excl out-ot-the-money warrants/options

**= Adj EBITDA excludes impact of Sequel progress payments



Profile

Microbix Biosystems Inc. (MBX-T) is a Canada-based life science company and manufacturer of viral and bacterial antigens and cell, culture-based biological products and technologies. MBX's catalogue of antigens covers +30 bacterial and viral pathogens implicated in maternal, pediatric, childhood, respiratory, sexually transmitted and insect-borne diseases. MBX is now focusing on a higher growth opportunity: its QAPs™ product line, targeting quality controls within accreditation organizations, IVD equipment manufacturers, and clinical laboratories. Microbix also has a fully-funded biologic thrombolytic drug program, Kinlytic® urokinase, which is targeted to return to the U.S. market by way of an sBLA filing in approximately three years.

Disclosure

Please refer to the important disclosures on page 16.

FQ3/24 REVIEW: QUARTER SAW STRONG ORGANIC REVENUE GROWTH IN ANTIGENS AND QAPS, MARGIN EXPANSION AND KINLYTIC REINTRODUCTION ON TRACK. MAINTAINING $0.75 TARGET, KINLYTIC UROKINASE PROVIDING UPSIDE.

- **Revenue Growth**: Excluding Kinlytic™ urokinase royalties, revenues for the core business grew by 21% YoY to $5.1m. Within segments, **Antigen** revenues posted a robust growth of 25.6%, while **QAPs**™ saw a 14.6% increase. The growth in Antigens was driven by a continued recovery in respiratory testing post-COVID, supported by strong orders from the Asian market. QAPs™ performance aligned with our expectations as QuidelOrtho Corp. continues to address issues with its Savanna platform. The timing and pace of the Savanna platform's introduction and growth to other customers could offer upside to F2025 forecasts.
- **Kinlytic Update**: As anticipated, there were no licensing revenues from Kinlytic® urokinase. MBX is set to receive the final payment of US$1.0m upon the approval of the supplemental Biologics License Application (sBLA). We expect the sBLA filing to occur in early 2027, with significant licensing revenues beginning in 2028.
- **Margin Improvement:** Gross margins recovered to 54.3%, up from 42.5% in FQ3/23, which was negatively impacted by a higher proportion of lower-margin antigen sales and an inventory write-down. The margins for FQ3/24 are in line with management's target of +50%, with a long-term goal of approximately 60% as QAPs™ production scales up.
- **Operating Expenses:** Total operating expenses decreased by 14.2% following the near completion of the ERP solution and eQMS master control implementations, resulting in reduced consulting fees.
- **EBITDA:** The combination of higher sales, improved gross margins, and lower costs led to a substantial improvement in adjusted EBITDA margin, reaching 11.7% in FQ3/24 compared to -31.4% in FQ3/23.
- **Cash Position**: MBX reported a marginal $64k sequential decrease in cash balances to $12.8m. Key factors included $1.4m generated from operating activities, offset by $1.0m in capital expenditures and intangible assets, $257k in long-term debt repayments, and $162.6k used for share repurchases.
- **Valuation**: MBX continues its transformation from a manufacturer of less-regulated test ingredients (Antigens) to a producer of higher-margin regulated medical devices (QAPs™) diagnostics. Using a sum-of-the-parts valuation approach, we maintain our target of $0.75 per share for MBX. This valuation is based on an EV/EBITDA approach for the base business, supplemented by a $40.0m valuation for the Kinlytic® urokinase development asset. We will reassess our valuation of Kinlytic® urokinase upon sBLA filing, potentially adjusting to $1.30/share on a discounted cash flow basis or $1.00/share based on an estimated 2033 after-tax earnings contribution of $0.11 per share, discounted at 10% per annum.

FQ3/24 Revenues

Microbix's strategy is to transform from being a manufacturer of less-regulated test ingredients (Antigens), into the producer of a catalog of clinically important and fully regulated medical devices (QAPs™) relating to infectious-disease diagnostic tests.

With this in mind, in FQ3/24, Antigen revenues grew significantly faster than QAPs™ (25.6% vs 14.6%) as QAPs™ growth continued to be negatively impacted by the delay in the ramp of one of the company's growth customers (Figure 1). Excluding Kinlytic royalties, the base business revenues grew 21.0% YoY.

Figure 1: MBX FQ3/24 revenues ($000's)

	FQ3/24	FQ3/23	% change	Explanation
Antigen products	3,276	2,609	25.6%	Continued post-COVID recovery and benefits from its Asian distributor
QAPs™	1,670	1,457	14.6%	Growth lower than expected as a growth customer delayed introduction of one of its products
Royalties	113	115	-1.7%	
Base business	**5,059**	**4,181**	**21.0%**	
Kinlytic royalties		1,349		
Total revenues	**5,059**	**5,530**	**-8.5%**	

Source: Company reports; KRC Insights

Antigen products. The 25.6% YoY revenue growth was a function of:

- continued recovery post COVID; and
- benefit from its Asian distribution partner.

There is an element of lumpiness in this business (Figure 2) as it is dependent upon 4 or 5 of larger customers and the timing of their demand.

Figure 2: MBX Antigen revenues ($000s)

Fiscal year	FQ1	FQ3	FQ3	FQ4	Full year
2017	1,887	2,580	2,705	2,720	9,892
2018	2,803	2,922	3,158	3,309	12,191
2019	2,341	3,736	2,792	3,112	11,981
2020	1,946	2,358	2,246	2,138	8,688
2021	2,138	2,524	2,399	2,021	9,082
2022	1,766	1,608	2,284	2,630	8,288
2023	1,004	3,005	2,609	2,975	9,592
2024	1,954	4,111	3,276		

Source: Company reports

Outlook: MBX has visibility into future antigen orders because it does not typically stock a lot of inventory. On the FQ3/24 conference call, management stated "…we have a very strong **order book** (for) antigens and there is no indication (that it is) slowing down… looks to be strong going into at least the first half of fiscal 2025". In support of this view, MBX added:

- a product transitioning to bioreactors; and
- further additions to capacity.

Which suggests that MBX is expanding its production capacity to meet increased demand for antigens, including rubella.

QAPs™. MBX continues to make progress with regards to its QAPs™ customer base. Direct customers include 4 of the top 5 largest diagnostics companies in the world, most of the largest proficiency testing and accreditation organizations and the majority of the world's largest clinical laboratories.

QAPs™ revenues grew 14.6% YoY due to:

- continued growth with test makers, due to inclusion in the kits of test cartridges (sometimes in point-of-care, but not always); and
- direct sales to major clinical labs.

Outlook. Improved point-of-care instruments as well as the emergence of better clinical, laboratory-based assays are driving the demand for test controls. However, we do expect some lumpiness in this segment as a significant customer orders in only 3 of 4 quarters.

An overview of the QAPs™ product line is shown in Appendix II.

VTM. While revenues from this segment were nil, continued capacity expansion implies the pending resumption of revenue growth. In this regard, MBX is currently using VTM in support of its controls business - combining QAPs and VTM to offer full process solutions within the context of its onboarding kits. As such, these sales are not disclosed separately but included in QAPs™ revenues.

FQ3/24 Gross Margins

Gross margins were a satisfactory 54.3%, up from 42.4% reported in FQ3/23 (Figure 3). The current year was negatively impacted by some stale-dated QAPs™ product write-downs, while last year was negatively impacted by:

- a greater proportion of lower margin antigen product-ingredient sales; and
- a write-down of aging DxTM inventory of $949k.

Margins achieved management's short-term focus of +50%, but the ultimate target is ~60% when QAPs™ become a greater contributor.

Figure 3: MBX base business gross margins*

Source: Company reports, KRC Insights *=excludes license payments

Several factors influence margins:

- **Sales mix**. There is variability within the antigen portfolio on a product-by-product and even lot-by-lot basis. Gross margins are positively impacted by the contribution from higher margin QAPs™ sales.
- **Manufacturing process**. Continued transition from roller bottles to bioreactors. This quarter, a second bioreactor line came online. While an increasing portion of the Antigen business is now bioreactor-based, Mycoplasma is an example of one of the remaining products undergoing transition to bioreactors.
- **Manufacturing volume**. MBX is expecting to add new clients to its Antigen business in Asia/China through its distributor in Asia.
- **Capacity expansion**. MBX has not only expanded its manufacturing capacity substantially, but it has also made material investments to modernize its manufacturing process (Figure 6). This includes the implementation of Enterprise Resource Planning (ERP) software and the move to a paperless Quality Management System (eQMS). Both are essential to benefit the company in the long term as volumes grow, but will cause a drag on margins over the medium term.

FQ3/24 Operating Expenses

Total operating expenses decreased 14.2% YoY (Figure 4).

The reduction in operating expenses is due to the implementation of the ERP solution and eQMS master control now being essentially complete (hence lower consulting fees), as a result, operating expenses are not expected to grow at the same rate as revenues. However, MBX is investing in sales and marketing, research and development, and product development with the addition of a fourth facility, which may result in a net increase in operating expenses.

Figure 4: MBX FQ3/F24 expenses ($000's)

	FQ3/24	FQ3/23	Comment
Selling and business development	365	374	
General and administrative	1,655	2,104	
R&D	563	531	
Total expenses	2,583	3,010	-14.2%

Source: Company reports; KRC Insights

FQ3/24 EBITDA margin

Referring to the base business (excluding Kinlytic® urokinase license payments received Q3/23), the benefit of higher sales, higher gross margin and lower costs resulted in a substantially improved adjusted EBITDA margin for the base business of 11.7% in FQ3/24 vs -31.4% in FQ3/23. (Figure 5).

Figure 5: MBX base business EBITDA margins*

Source: Company reports; KRC Insights *=excludes license payments

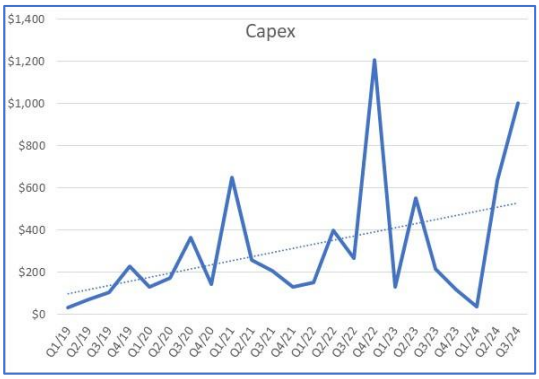
Cash Flow and Balance Sheet

In FQ3/24, MBX reported a $64k sequential decrease in cash, with cash balances at a healthy $12.8m. Principal contributors to this movement include:

- $1.4m cash provided by operating activities; offset by
- $732k of capex and $270k purchase of intangible assets (Figure 6); and
- $257k repayment of long-term debt and $162.6k repurchase of common shares.

MBX has made significant investments in manufacturing capacity expansion (Figure 6). We do not expect the same level of capex in FQ3/24 to be repeated in FQ4/24.

Figure 6: MBX capex and intangibles ($000s)



Source: Company reports; KRC Insights

As we have stated prior, management estimates that when these expansions are completed, along with the IT systems and ERP upgrades, they will support greater than a $50m revenue run rate.

MBX has made effective use of government funding for its capex as shown by long-term debt (Figure 7). Total debt was reduced by $358k sequentially.

Recently, MBX was able to defer repayment of its FedDev loan, when on 27/5/24, MBX signed an amendment to the FedDev agreement extending the project completion date to 31/12/24, consequently the repayment of all contributions will now commence on 15/1/26 (vs 15/10/25 previously). As a result of this extension to the timing of repayment, MBX recorded a gain on debt modification of $166,630 in FQ3/24.

Figure 7: MBX total debt at FQ3/24 ($000's)

	Current	Non-current	Total	Detail
Long term debt	111.1	3,560.7	3,671.8	Low interest govt loans: BDC $1.6m, Ontario govt $2.4m,
Lease liability	150.4	588.4	738.8	Covers three facility leases
Convertible Debentures		1,946.0	1,946.0	Debentures mature on 9/28 and 1/29, bear interest at 9%, and have a face value of $4.0m. These are in-the-money and most likely will be converted.
Total debt	261.6	6,095.1	6,356.6	

Source: Company reports, KRC Insights

The debt is well covered (Figure 8).

Figure 8: MBX FQ3/24 total capital employed ($000s)

	30/6/24
Share capital	49,065.5
Equity component of CDs	2,272.6
Contributed surplus	10,515.9
Accumulated deficit	-33,831.6
Total equity	28,022.4
Total debt	6,356.6
Total capital employed	34,379.1

Source: Company reports, KRC Insights

And MBX's updated share count, effectively consistent with FQ2/24, is shown in Figure 9:

Figure 9: MBX fully diluted share count (000s)

	Shares	Options	Warrants	Convert. Deb	Total
At 30/6/24	136,705	13,114	8,882	17,391	176,092

Source: Company reports, KRC Insights

Estimates

Revenues

MBX management does not provide formal guidance. However, on the FQ3/24 conference call, the following updates were provided:

- FQ4 total revenue growth will be north of 20% year-over-year;
- For F2025, total sales growth is expected to be in the 20%-40% range.

The variability in the F2025 outlook can be explained in part by the timing of QuidelOrtho Corp's (QDEL-Q) launch of its Savanna platform. To provide context for this variability, post MBX's FQ2/24, we lowered our QAPs™ revenue forecasts due to the delay by QDEL-Q of its Savanna RVP4 Test and the uncertainty regarding the timing of the reintroduction of this platform.

On its Q2/24 conference call[1], QDEL provided the following update: "… Savanna is admittedly late to the party. But despite being late, we see Savanna continuing to provide significant competitive advantages in the molecular point-of-care market, both today and well into the future. A successful US launch of Savanna will offer incremental revenue and margin growth opportunities for us, and we are committed to getting it across the finish line. Building on the Savanna instrument and HSV panel approvals in the US, we expect to enter clinical trials on our respiratory panel later this year. And while we won't attempt to predict regulatory time-wise, our goal is to be in the market with both the respiratory panel and the STI panel in 2025."

Hence, the timing of the regulatory approval and concomitant commercial introduction of the Savanna platform could have a material impact on MBX's second half F25 revenues.

We have raised our Antigen forecasts while maintaining our F25E revenues (Figure 10):

Figure 10: MBX Revenue Forecasts ($000's)

Sept. year-end	2024E	2025E	Description
Antigen products	12,757	14,288	Expected continued recovery in antigen sales in F2024 based on new product introductions and increased penetration of Asia/China. Management expects antigen revenues to exceed the pre-pandemic record of $12.0m. We expect this recovery to extend into F2025.
% growth	33.0%	12.0%	
QAPs™	7,117	10,320	We forecast an acceleration of QAPs™ growth in F25E based on the continued ramp by major international diagnostic customers, including QDEL which could provide upside. Currently, MBX has over 20 QAPs™ clients, all ramping. New areas of expansion include geographic expansion and new products (e.g. *H.pylori* for stomach ulcers).
% growth	39.9%	45.0%	
Royalties	470	456	
% growth			
Sales of base business	20,344	25,064	
% growth	34.1%	23.2%	
Kinlytic® urokinase Royalties	4,086		
Total Sales	24,430	25,064	
Total revenue growth	47.9%	2.6%	

Source: KRC Insights

For F24, we are forecasting a 47.9% YoY total revenue growth, or 34.1% excluding Kinlytic® urokinase licensing fees. Principal drivers include a recovery in Antigen revenues to historical levels and a continued ramp of QAPS™ sales evidenced by the commencement of several multi-million-dollar QAPs™ contracts. In addition to the plant expansion discussed above, MBX expects to convert VTM product lines to QAPs™ product lines as well.

Margins

Factoring in anticipated revenue growth, continued improving gross margins (for base business, excluding impact of Kinlytic® urokinase license fees), and leveraging the increased cost base as the company expands production and selling expenses, we forecast that EBITDA margins will approach +18.7% by F25E (Figure 11).

[1] QDEL Q2/24 conference call was hosted 31/7/24

Figure 11: MBX EBITDA forecasts ($000s)

Sept. year-end	2023A	2024E	2025E
EBITDA	1,499	5,499	4,016
Margin %	9.1	22.5	16.0
Adj. EBITDA*	(2,530)	2,083	4,016
Margin %	(17.2)	10.5	16.0

Source: KRC Insights Adj EBITDA excludes the impact of Sequel license payments i.e. represents the base business only

Valuation

As an overview of the MBX share price, over the past 12 months, we compare the MBX shares performance against a Medical Devices ETF.

MBX shares have outperformed vs those of the iShares U.S. Medical Devices ETF (IHI-N), generating a 12-month return of 21.3% vs 12.6% of the ETF (Figure 12). IHI is a ~US$4.9bn ETF and its holdings comprise, amongst others, several MBX customers. It offers exposure to U.S. companies that manufacture and distribute medical devices and is used to express a sector view.

The recovery in the MBX shares from the lows of:

- November 2023: can in part be attributed to the 16/11/23 announcement that Sequel Pharma, LLC was to return Kinlytic® urokinase to market. A further US$2.0m in license fees was received by MBX in this regard.
- June 2024: potentially anticipating a recovery in the base business.

Figure 12: MBX share price vs iShares U.S. Medical Devices ETF (pricing at 5/9/24)

Source: Respective exchanges, KRC Insights

To provide context for the 12.6% increase in the ETF share price over the past 12 months, we provide some granularity (Figure 13) limited to our group of MBX comparable companies, some of which are included in the IHI ETF.

This comparable group of companies has experienced an average -5.1% decline in their share prices over the past year (vs +12.6% for the ETF). This 5.1% decline is materially influenced by QuidelOrtho (QDEL-O) whose share price declined 44.5%. Refer to our comments above which provide a partial explanation for this decline.

As a result, the greater decline in NTM EBITDA forecasts vs. share prices, results in expanded valuation multiples of 6.6% (Figure 13).

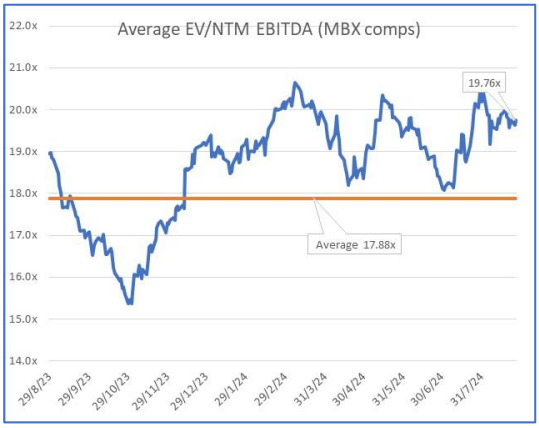
Figure 13: 12-month changes in share prices and NTM EBITDA forecasts (as of 5/9/24)

	Symbol	12-month change in share price %	12-month change in NTM EBITDA %	12-month change in EV/EBITDA multiple %
Microbix Biosystems Inc	MBX.TO	21.3%		
Bio Rad Laboratories Inc	BIO.N	-12.8%	-23.3%	9.8%
Bio-Techne Corp	TECH.O	-6.3%	-5.0%	-0.4%
Danaher Corp	DHR.N	14.5%	-13.7%	16.3%
DiaSorin SpA	DIAS.MI	6.9%	-1.5%	6.0%
QuidelOrtho Corp	QDEL.O	-44.5%	-24.7%	-4.4%
Thermo Fisher Scientific Inc	TMO.N	12.0%	-3.8%	12.5%
Average		-5.1%	-12.0%	6.6%

Source: KRC Insights

This appreciation in valuation multiples is reflected graphically in Figure 14. The average EV/NTM EBITDA multiple of this group has expanded from 19.0x to 19.7x over the 12 months (averaging 17.9x for this period).

Figure 14: MBX comps trend in NTM EV/EBITDA



Source: KRC Insights

The comparable company valuation table is shown in Figure 15. We compare MBX's valuation of its base business (Antigens and QAPs™), excluding the Kinlytic® urokinase asset as it is valued separately. MBX is currently trading at a discount to its peer group on an EV/2025E EBITDA basis (11.2x vs 18.3x).

Figure 15: MBX and comparable companies' valuations (pricing at 5/9/24)

					EBITDA		Revenues		Rev	EV/EBITDA		EV/Revenues	
	Symbol	Price	Mkt Cap	EV	2023A	2025E	2023A	2025E	Growth	2023A	2025E	2023A	2025E
Microbix Biosystems Inc*	**MBX.TO**	**0.37**	**50.6**	**44.1**	**(2.5)**	**4.0**	**15.2**	**25.1**	**65.3%**	**nmf**	**10.99x**	**2.91x**	**1.76x**
Bio Rad Laboratories Inc	BIO.N	330.91	9,201.7	8,785.8	535.9	512.3	2,671.3	2,693.7	0.8%	16.39x	17.15x	3.29x	3.26x
Bio-Techne Corp	TECH.O	71.12	11,279.7	11,445.8	411.0	492.9	1,159.1	1,334.1	15.1%	27.85x	23.22x	9.88x	8.58x
Danaher Corp	DHR.N	264.49	191,018.1	205,659.1	7,530.0	8,547.9	23,890.0	25,645.8	7.3%	27.31x	24.06x	8.61x	8.02x
DiaSorin SpA	DIAS.MI	101.55	5,681.5	6,470.9	375.0	431.4	1,148.0	1,286.5	12.1%	17.26x	15.00x	5.64x	5.03x
QuidelOrtho Corp	QDEL.O	40.36	2,713.6	5,170.2	723.2	653.9	2,997.8	2,764.4	-7.8%	7.15x	7.91x	1.72x	1.87x
Thermo Fisher Scientific Inc	TMO.N	611.9	233,743.1	260,428.1	10,878.0	11,745.0	42,857.0	45,673.6	6.6%	23.94x	22.17x	6.08x	5.70x
Totals/**Average**							74,723.1	79,398.1	**6.3%**	**19.98x**	**18.25x**	**5.87x**	**5.41x**
*=Forecasts for base business only as KU asset valued seperately													

Source: KRC Insights

We believe that as MBX executes against our revenue forecasts (Figure 15), this valuation difference will close.

Our valuation for MBX (Figure 16) is based on the following metrics:

- We apply a 19.0x EV/2025E EBITDA multiple – a slight premium to the average of MBX's US-listed peers of 18.3x (Figure 15). Our premium is in anticipation of the ramp of the QDEL QAPs™ revenues which could materially impact the back half of F2025.
- We use the fully diluted number of shares, which includes the conversion of the convertible debenture (Figure 9).
- We ascribe a notional value for the Kinlytic® urokinase asset of $40m to provide recognition in the progress to re-commercialization and believe that the Sequel agreement validates this approach. There is no benefit in F25 from the Kinlytic® urokinase asset until the US$1.0m due upon filing of the sBLA. We will adjust our valuation of Kinlytic® urokinase further once the sBLA is filed.

We derive a target of $0.75 for MBX using a sum-of-parts approach: 1). Valuing the base business by applying an EV/EBITDA multiple to the base EBITDA, and then 2) adding $40.0m for the Kinlytic® urokinase development asset.

Figure 16: MBX valuation ($000s)

		New
F2025E Adj. EBITDA**	$000s	4,016
Multiple	x	19.0x
Enterprise Value	$000s	76,310
Add: Cash 2025E	$000s	15,561
Less: Debt 2025E*	$000s	3,483
Implied market cap	$000s	88,388
Kinlytic™ urokinase	$000s	40,000
MBX valuation	$000s	128,388
FD # shares**	000s	176,092
Target price	$	0.73
Rounded	**$**	0.75
***=assumes conversion of the CDs.**		

Source: KRC Insights

**= Adj EBITDA excludes the impact of Sequel progress payments and agents' commission i.e. represents the base business only

Figure 17: MBX historical and forecast income statement ($000s)

Sept. year-end $000's	2021	2022	2023	Q1/24	Q2/24	Q3/24	Q4/24E	2024E	2025E
Antigen products	9,082	8,288	9,592	1,954	4,111	3,276	3,416	12,757	14,288
% growth	4.5%	-8.7%	15.7%	94.6%	36.8%	25.6%	14.8%	33.0%	12.0%
QAPs™	4,705	5,375	5,087	2,248	1,400	1,670	1,800	7,117	10,320
% growth	207.9%	14.3%	-5.4%	68.6%	27.0%	14.6%	50.6%	39.9%	45.0%
VTM	4,507	5,004					0		
% growth		11.0%	0.0%						
Royalties & Other	299	409	1,835	4,205	122	113	115	4,555	456
% growth	-3.0%	36.5%	349.0%	2452.3%	8.9%	-92.3%	22.2%	148.2%	-90.0%
Total Sales	18,593	19,076	16,515	**8,407**	**5,633**	**5,059**	**5,330**	**24,430**	**25,064**
Total revenue growth	76.7%	2.6%	-13.4%	236.0%	33.5%	-8.5%	25.0%	47.9%	2.6%
Cost of goods sold	(7,549)	(7,951)	(9,033)	**(2,186)**	**(2,662)**	**(2,311)**	**(2,371)**	**(9,530)**	**(11,095)**
Gross Margin	11,044	11,125	7,481	6,222	2,971	2,748	2,960	14,900	13,969
Selling and business development	(858)	(1,554)	(1,478)	(364)	(373)	(365)	(364)	(1,466)	(1,504)
General and administrative	(4,316)	(5,162)	(6,693)	(2,805)	(1,643)	(1,655)	(1,617)	(7,720)	(7,845)
Research and development	(1,033)	(1,799)	(2,047)	(484)	(496)	(563)	(475)	(2,017)	(2,231)
Total costs	(6,207)	(8,515)	(7,139)	(3,652)	(2,512)	(2,718)	(2,774)	(11,656)	(11,860)
Operating (Loss)/income	4,837	2,610	342	2,569	459	364	423	3,815	4,448
Interest paid	(1,603)	(744)	(382)	(114)	(81)	(85)	(85)	(366)	(342)
Other						167	0	167	
Net income before taxation	3,233	1,866	(39)	2,455	378	247	419	3,498	2,047
Taxation		(77)					0		
Net income	3,233	1,789	(39)	2,455	378	247	419	3,498	2,047
EPS - Basic	$ 0.03	$ 0.01	($ 0.00)	$ 0.02	$ 0.00	$ 0.00	$ 0.00	$ 0.03	$ 0.03
EPS - FD	$ 0.02	$ 0.01	($ 0.00)	$ 0.02	$ 0.00	$ 0.00	$ 0.00	$ 0.02	$ 0.02
	2021	2022	2023	Q1/24	Q2/24	Q3/24	Q4/24E	2024E	2025E
Gross profit %	59.4	58.3	45.3	74.0	52.7	54.3	55.5	61.0	55.7
Operating margin %	26.0	13.7	2.1	30.6	8.1	3.3	9.4	15.1	9.5
EBITDA $000's	5,659	3,647	1,499	2,952	863	592	1,092	5,499	4,016
EBITDA margin %	30.4	19.1	9.1	35.1	15.3	11.7	20.5	22.5	16.0
Adj. EBITDA* $000's	5,659	3,647	(2,530)	(464)	863	592	1,092	2,083	4,016
Adj. EBITDA margin* %	30.9	19.5	(17.2)	(10.7)	15.3	11.7	20.5	10.5	16.3
Effective tax rate %	--	4.1	--	--	--	--	--	--	--
Net margin %	17.4	9.4	(0.2)	29.2	6.7	4.9	7.9	14.3	8.2

Source: Company reports, KRC Insights *=excludes the impact of KU progress payments

Appendix I: Kinlytic® urokinase

Given the potential impact on MBX's valuation of the Kinlytic® urokinase commercialization, this section provides context for investors and is only updated with the progress made since our last report.

Background

On 16 May 2023, MBX announced a commercialization agreement with Sequel Pharma LLC (Sequel). It represents the culmination of MBX's previously stated intention to re-commercialize Kinlytic® urokinase. Kinlytic® urokinase, formerly Abbokinase®, is owned 100% by MBX and approved for multiple indications. While originally targeting massive pulmonary embolism, it became the market leader for catheter clearance (CC).

MBX has signed a fully funded redevelopment deal for Kinlytic® urokinase. As part of the deal, MBX was to receive US$5.0m in pre-commercialization payments (detailed below) centered around closing and regulatory approval, then US$30m in sales-based progress payments and a double-digit royalty on net sales. Sequel will fund all development costs.

Progress to date

Of the US$5.0m of pre-commercialization progress payments, US$4.0m have been received:

- **First US$2.0m**. In FQ3/23, MBX received its initial $2.0m progress payment. Of this, US$1.0m was recorded as revenues, and US$1.0m was recorded as deferred revenue.
- **Second US$2.0m**. On 16 November 2023, MBX announced reconfirmation of its agreement with Sequel to return Kinlytic® urokinase to market. Following a satisfactory consultation with the U.S. Food and Drug Administration (FDA) that reconfirmed and built upon prior regulatory guidance, MBX received its second milestone payment of a further US$2.0m.
- **Accounting**: All the second US$2.0m was recorded as revenue and the US$1.0m deferred revenue was also recognized as revenue (being a reversal from deferred revenue) resulting in US$3.0m of progress payments recorded in FQ1/24.
- **Final US$1.0m**. Hence, MBX has now received US$4.0m of US$5.0m in pre-commercialization milestone payments. The final US$1.0m is due upon approval of the sBLA[2], expected sometime in 2027. There are additional revenue-based royalties due upon commercialization.
- **14/3/24**: Sequel Pharma, LLC executed, with support from Microbix, signed an agreement with a leading international contract development and manufacturing organization (CDMO) for production of Kinlytic® urokinase.
- **14/8/24**: On the FQ3/24 conference call, management provided the following updates:
    - MBX has a Contract Development and Manufacturing Organization (CDMO[3]) working on upgrading the drug substance, the purified urokinase protein for regulatory filings, and those

[2] **sBLA**: A Biologics License Application (BLA) is a request for permission to introduce, or deliver for introduction, a biologic product into US interstate commerce. A BLA includes Applicant information, Product/Manufacturing information, Pre-clinical studies, Clinical studies and Labeling. The supplemental BLA (sBLA) means the equivalent successor filing with the FDA, and any supplements or amendments to the original filing.
[3] A contract development and manufacturing organization, or **CDMO**, provides end-to-end, fully integrated drug development and manufacturing solutions and services to biotechnology and pharmaceutical companies.

studies are going exceptionally well. Kinlytic™ urokinase will be provided in a vial which will be used on patients. These negotiations are going very well.
- MBX and Sequel are in the process of engaging with a clinical research organizational (CRO). A CRO provides clinical trial services including clinical research, regulatory support, clinical trial planning, site selection and initiation, recruitment support, clinical monitoring, data management, trial logistics, biostatistics, medical writing, and project management.
- Timelines are unchanged from the last time MBX provided an update (Figure 18).

While Sequel is a private entity, and hence under no obligation to provide updates, management expects to provide two to three event-driven updates about Kinlytic® urokinase each year.

Cash implications. The first US$2.0m milestone payment was recorded in cash at the end of Q3/23 (albeit the accounting was split equally between revenues and deferred revenue). The second US$2.0m payment (~$2.7m) was recorded in cash in FQ3/24.

Write-back of the Kinlytic® urokinase intangible asset. In F2020, due to the lack of progress in finding a buyer/interested party in commercializing Kinlytic® urokinase, the Kinlytic® urokinase intangible asset had been written off resulting in a $3.1m impairment charge in that year. Owing to the receipt of the first milestone payment, the former asset was now deemed to have value and was written back In FQ4/23 and had no cash or tax implications. As a result, the asset is now being depreciated at $75k/quarter.

Timelines

In Figure 18 we provide a list of timelines as they pertain to the Sequel agreement.

Figure 18: MBX/Sequel (anticipated) timelines.

Milestone	Timing	Comment/Financial impact
Entered into Sequel agreement	16/5/23*	Per press release
First milestone payment	June 2023	US$2.0m split: US$1.0m recognized as revenue and US$1.0m recorded as deferred revenue
FDA consultation	October '23	
Second milestone payment	16/11/23*	US$2.0m milestone payment received week of 16/11/23
Receipt of sBLA/third milestone payment	2027E	US$1.0m. KRC Insight estimate assuming 3 years to approval of sBLA
First revenues	2028E	Initial seeding of the market to commence '27E with ramp '28E
Ongoing revenue-based sales royalties	2028E+	We estimate a 10% of net sales royalty
$30m sales-driven milestone payments	2029+	To be received based on pre-determined revenue targets

Source: Company reports; KRC Insights *=refers to MBX press release

Kinlytic® urokinase asset ownership will transition to Sequel upon approval of the sBLA, hence the Kinlytic® urokinase asset and the sBLA will become the property of Sequel at that time. However, if at any time prior to the issue of the sBLA development of the Kinlytic® urokinase asset is to be terminated, ownership will remain with MBX.

Kinlytic® urokinase Asset Valuation

We view the receipt of the second milestone payment and commercialization progress to date as validation of our current approach to value the Kinlytic® urokinase asset. We apply a notional $40m and we will adjust our valuation of Kinlytic® urokinase once the sBLA is filed using one of the following approaches:

- $1.30/share on a DCF basis, or
- $1.00/share based on a 2033E after-tax earnings contribution of $0.11/share discounted at 10% p.a.

Appendix II: QAPs™ Products

MBX's QAPs™ product segments can be summarized as follows:

- PTDx™: sold directly to lab accreditation organizations (usually white label).
- PROCEEDx™: sold directly to OEMs for qualifying new instruments and training technicians. Included with their test kit consumables, particularly research use only (RUO) products for use in test systems IQ/OQ/PQ, Verification/Validation, and Training.
- ONBOARDx™: Verification/Validation kit for instrument, kit, or assay qualification and use in internal processes and technician training.
- REDx® controls: to support the formal QC and QA programs of clinical laboratories. These are FDA-listed, and CE-marked products designed for use as Quality Control Samples in a clinical setting.

Disclosure

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