MICROBIX

BIOSYSTEMS INC.

Infectious Disease Specialists

Corporate Presentation

Winter 2021

Forward-Looking Statements

- This presentation contains forward-looking statements about trends and objectives.
- Risks and uncertainties related to such statements could cause actual outcomes to differ materially.
- Such risks include those related to customers or markets, growth drivers, products or technologies, product pricing or costs, development projects, financial results, and access to capital.
- Forward-looking statements represent Microbix's current judgment and it disclaims any obligation to update them.

Our Company Today

- Develops, makes, and sells biological products or technologies to customers in North America, Europe, Asia, and other markets.
- Leads in supplying native “antigens”, as a critical part of medically important infectious disease tests. This segment has averaged $1M/month in sales. Potential for growth to resume post-pandemic.
- White label “PT” sales already >$1M per year as the start for “QAPs™” Now opening new QAPs markets – to key OEM test-makers and clinical laboratories across the diagnostics industry. Sales +40% in f2020.
- Viral Transport Medium (VTM) opportunity in support of COVID-19 testing. Grant from Ontario to scale production to 60,000 vials per day. Production starting at 50,000 vials per week as of early calendar 2021.
- Primed for continuing sales growth, increased product development, near-term expanded gross margin, growing net earnings, and share price appreciation.

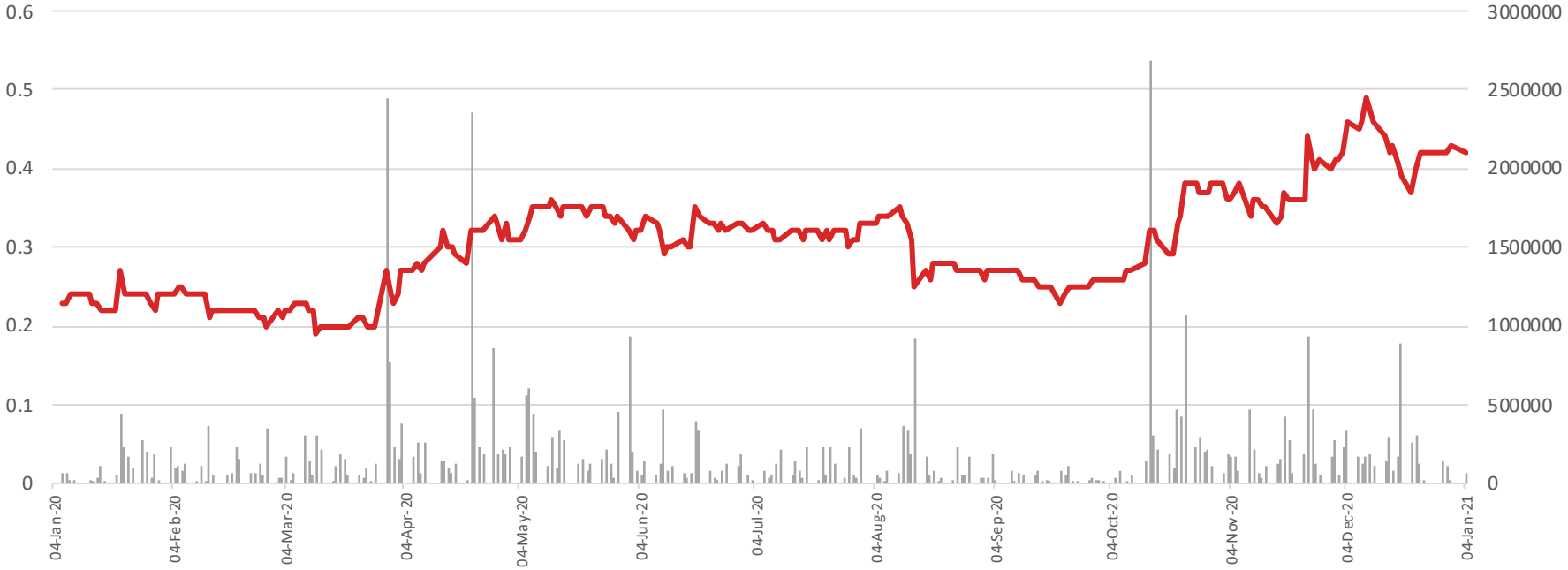
Management

Cameron L. Groome CEO, President, and Director	Has served on the MBX BoD and AC since 2012, and was appointed CEO in 2017. 30 years' experience in senior life sciences and finance roles. Successful leader, executive, director, and advisor for public and private companies.
Jim Currie, CPA Chief Financial Officer	Joined MBX as CFO in 2016 after several CFO roles and a VP of Finance role at MDS SCIEX, a global leader in life science and analytical technologies. Jim holds a Bachelor of Commerce and holds a CPA and a CMA.
Ken Hughes, Ph.D. COO	Executive and biomedical scientist with 25 years of experience in biotech and pharma. Previously was CEO of iTP Biomedica, VP, Sci. & Reg. Affairs at Innovative Medicines Canada and Co-founder and Advisory Board member of PlantForm Corporation.
Phil Casselli Senior Vice President Business Development, Sales, and Marketing	Manages MBX's relationship with over 100 makers of infectious disease diagnostics across multiple regions. He holds a Bachelor of Applied Science in Chemical Engineering and has more than 30 years' experience in the biotech and pharmaceutical industries.
Mark Luscher, Ph.D. Senior Vice President, Scientific Affairs	Responsible for scientific programs, he is a specialist in cell biology, immunovirology, and cytometry. He is an inventor on numerous patents and patent applications and oversees scientific and technological programs and initiatives related to MBX's products.
Kevin Cassidy Vice President Biopharmaceuticals	Responsible for MBX's pathogens and toxins license from Public Health Agency of Canada, with over 30 years' experience in the biotech industry. Among other responsibilities, is also the lead executive directing the Kinlytic® urokinase biologic clot-buster program.

Board of Directors

Martin Marino Chairman	Mr. Marino has more than 30 years' experience in corporate legal roles and executive management functions, with emphasis on transaction-based corporate development. He also has considerable experience in conflict resolution and litigation management.
Dr. Peter M. Blecher Director	Dr. Blecher is the founder of several biotech ventures, including one purchased by MBX. He has practiced emergency medicine at Lakeridge Health, pain medicine at CPM Centers for Pain Management, and is Medical Director of Starseed Medicinal, Inc.
Mark A. Cochran, Ph.D. Director	Dr. Cochran was Executive Director of Johns Hopkins Medicine. His experience spans all levels of the drug discovery and development value chain, including operational and executive roles in the healthcare, venture capital, pharmaceutical, and biotech industries.
Vaughn C. Embro-Pantalony Director	Mr. Embro-Pantalony has held multiple executive roles in life sciences, with responsibility for licensing, business development, and strategic planning. His experience includes executive roles with Bayer, Novopharm and Terra International. He is a Chartered Director and Audit Committee Certified through McMaster University.
Anthony J. Giovinazzo Director	Mr. Giovinazzo has over 40 years of life sciences experience and is an internationally-recognized expert in life sciences IP, drug development, and product commercialization. He was previously the CEO of Cynapsus Therapeutics and currently serves as Executive chairman of Sublimity Therapeutics, as a director of Pond Technologies Holdings Inc. (TSXV: POND), and as a director of Titan Medical Inc. (TSX: TMD, NASDAQ: TMDI).
Joe Renner Director	Mr. Renner, Chairman of Zydus Pharmaceuticals, Pennington, New Jersey, has more than 25 years' experience in the pharmaceutical industry. He has enjoyed a successful career leading businesses with many drug approvals in the United States.
Cameron Groome Director	Mr. Groome is President and CEO of Microbix.

Capital Structure



TSX Listed, Symbol: MBX

Current Price	**$0.43** (Jan 4)	Market Capitalization	**$42.14M**
Shares Outstanding (Basic)	**108.77M**	Avg. Daily Volume	**252K (3 months)**
(Fully Diluted)	**159M**	Cash and Line of Credit	**$2.5 M**
52 Week High	**$0.50**	Longer Term Debt	**$2.5M BDC** **$7M debentures***
52 Week Low	**$0.17**		

*$4.5M convertible at $0.23

MICROBIX

Microbix's Three Sales-Driven Business Divisions

Current platform and capacity enables accelerating sales growth by a well-established multi-product life sciences business

1 Global leader in native antigen production

- Critical supplier to >100 global makers of tests for infectious diseases.
- >95% export sales, to clients in the Americas, Europe and Asia.
- Poised to benefit from post-pandemic return to increasing infectious disease testing and tech-driven margin expansion.

2 Global leader in EQA/PT controls, OEM and Lab support through Quality Assessment Products (QAPs)

- A leading supplier to agencies that test and accredit clinical laboratories.
- Expanding markets via supporting test-developers and clinical laboratories.
- Adding newand innovative QAPs with large sales potential at good margins.
- Strategic Agreement with Copan Italia S.p.A., the global leader in specimen-collection devices.

3 Viral Transport Media for Pandemic Testing

- Ontario Together Fund grant of $1.45M to equip for supplying VTM to meet COVID-19 testing needs.
- Accompanying LOI for procurement by Ontario.
- Production targeted at 60,000 vials/day, and starting at 50,000/week in early calendar 2021.
- Squarely within core competencies and medical devices accreditations.

MICROBIX

Sales of Antigens for Immunoassays

Immunoassays

Diagnostic tests that measure an antigen-antibody reaction, and for infectious diseases, can:

a) suggest the presence of a pathogen,

b) establish exposure to a pathogen, or

c) assess the level of immunity to a pathogen.

Antigens –

Any foreign substance that evokes an antibody response and binds to an antibody. Antigens are an essential and core component of immunoassays.

Uses of Immunoassays

To diagnose exposure or immunity to pathogens that can affect health in adults, children, neonates, or life in utero. For such vital uses, *immunoassays cannot be replaced by nucleic acid-based tests.*

Microbix's Role

Growing, purifying, and inactivating real bacteria and viruses for use as antigens for more than 100 leading international diagnostics companies.

Microbix provides antigens on a large scale, most often as a critical sole-source supplier.

Growth Outlook for Antigens Business

1 Antigens

Antigens comprise ~85% of total sales (f2020), and have demonstrated material sales growth over the past 2 years. Antigen sales have been negatively impacted in 2020 by reduced testing for non-pandemic related diseases. The Company anticipates this business line will rebound to pre-pandemic levels in 2021/22.

~85%
of sales

- As healthcare re-stabilizes, may benefit from greater global attention to respiratory and infectious disease testing resulting from the COVID-19 pandemic.
- In the more mature markets of the USA and Europe, growth can be derived from expanding relationships with established diagnostics clients.
- Further growth likely from adoption of public health-oriented immunoassays in new regions, such as Asia-Pacific nations.
- Microbix antigens are already being incorporated into dozens of tests seeking approval for use in China, for a large emerging-market opportunity.
- Improvements to processes, including the use of bioreactor technologies for viral antigen production, are expected to enhance gross margins for this segment.

Beyond Immunoassays

2 Quality Assessment Products

→ The QAPsTM Opportunity

Microbix identified an important role for its antigens beyond usage in immunoassays, as **Quality Assessment Products (QAPs™).**

Proper Quality Control (QC) of infectious disease tests is critical to health outcomes.

- *Optimal QC requires emulation of real patient samples to ensure correct results.*
- *This requirement applies to both immunoassay and nucleic acid tests.*
- *U.S. and European labs are recommended to use 3rd party Quality Controls when available*

Microbix has the rare expertise needed to make a broad range of such products.

Growing many bacterial and viral organisms safely, economically, and at scale
Inactivating organisms in order to have intact surface antigens AND nucleic acids
Augmenting by using leading-edge biology tools where traditional methods fall short
Formulating to concentrations representative of clinical samples
Stabilizing samples for optimal commercial shelf-life and temperature stability
Validating product performance through enhanced quality systems (i.e., ISO 13485, MDEL)

Microbix has therefore developed a line of clinically-important QAPs, an opportunity well suited to its capabilities and market *bona fides* and a large, low-risk market opportunity.

Our QAPs Segments and their Markets

PTD™ **~$2.0 million in sales targeted – US$10-US$20/unit, all direct**

Usually unbranded (White Label)

- Sold directly to a limited pool of lab accreditation organizations
- Targeted to double from its current base of ~$1.0M/year

PROCEED™ **>$10 million in sales targeted – US$20-US$30/unit, mostly direct**

Usually Branded – PROCEEDx™

- Sold directly to Dx OEMs for inclusion with their test kit consumables
- Dx OEM validation/specification helps to secure clinical laboratory customers

REDx controls™ **Multiple of $10s of millions in targeted sales – >US$30/unit MRSP**

Microbix branded – REDx™ Controls or REDx™FLOQ®

- Licensed/ registered for sale in Canada, EU and U.S. (vial and/or swab formats)
- Sold directly to clinical lab chains or via distributors (5 Cos., 22+ countries)
- Growing sales of leading COVID-19 (SARS-Cov-2) and HPV controls
- Targeting multiple lab and distributor accounts of >$100K/year
- Gross margin ≥70% for these QAPs across multiple product formats

$1M in PTDx just the start for QAPs™

2 Quality Assessment Products

Microbix is now opening new markets, providing its QAPs to key participants across the diagnostics industry.

PROCEED™

PROCEEDx™ – For qualifying new instruments and training technicians

To Instrument Manufacturers

Sales began in f2018, reached approximately $200,000 f2020

RED controls™

REDx Controls™ – To support the formal QC and QA programs of clinical laboratories

To Clinical Laboratories

Sales began in f2020, of approx. $200,000 2020.

PROCEEDx™ and REDx Controls™ are being:

(a) labelled as Microbix products;

(b) sold in greater volumes at higher prices.

QAPs are providing sales growth and were close to 20% of Q4 f2020 revenues.

- **Into North America, Europe, and ROW markets at favourable gross margins.**

MICROBIX

QAPs – For COVID-19

2 Quality Assessment Products

Development Timeline for COVID-19 Nucleic Acid Amplification & Antigen QAPs

- **Microbix was quick to recognize an emerging global pandemic**
- **Microbix has followed-up with QAPs to support both RT-PCR and Antigen-based tests for COVID-19 disease**

February
Began development of QAPs for SARS-CoV-2 weeks before WHO declaration

Spring 2020
Concluded antibody testing would not be useful in the context of early COVID-related testing

March 30
Announced externally validated prototype QAPs to support COVID-19 RT-PCR tests

April 21
Achieved Health Canada Medical Devices Establishment License (MDEL)

May 7
Secured U.S. FDA registration to enable sale of QAPs for COVID-19 (and more)

Summer 2020
Began development of FLOQSwab® formatted QAPs to support antigen tests for COVID-19 disease

June 1
Contract for custom PROCEEDx QAPs development with leading Dx POCT OEM

June 5
Secured EU "CE mark" registration for COVID-19 RT-PCR QAPs (vials & swabs)

June 15-30
Shipped initial inventories of COVID-19 & HPV QAPs to five distributors.

Fall 2020
COVID-19 antigen test QAPs validated with leading Dx OEM test makers.

October
1st COVID-19 antigen test QAPs sales of >1,000 prototype units to major lab accreditation (PT) organizations

Fall 2020
Start of significant ONBOARDx kit sales (RUO) to support new instrument installs & tech training

Winter 2020/21
Complete COVID-19 antigen test QAPs "technical file" to license for use by clinical laboratories

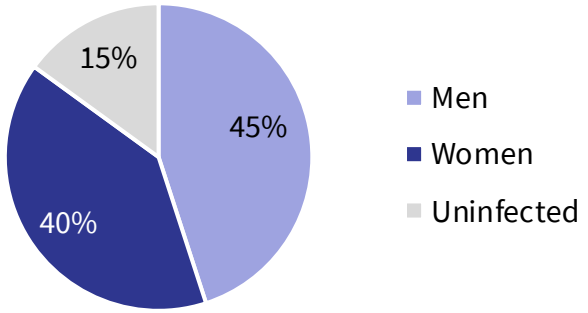
MICROBIX

QAPs: Other Opportunities: HPV

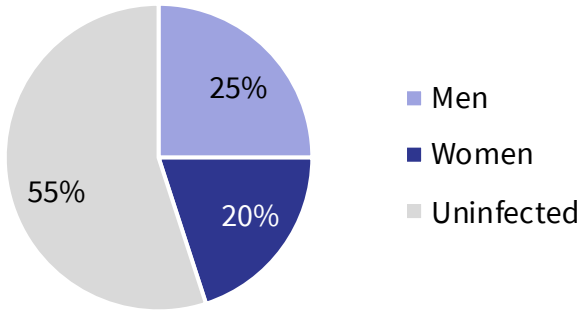
Most sexually-active adults are carriers of one or more strains of HPV

- High-risk strains of HPV cause cervical, penile, anal, mouth, throat, and other human cancers
- PCR (molecular) testing for high-risk HPV improves diagnosis and treatment efforts
- However, utility of such testing is hampered by a lack of adequate test controls
- Microbix developed and licensed its first HPV controls in September 2019 (for EU & US)
- Sales effort focused on EU, with distributor relationships established across H1 2020.
- Pandemic delayed distributor engagement and roll-out of HPV QAPs – multiple reasons
- However, meaningful sales of HPV QAPs have begun & opportunity unimpaired longer-term

Percentage of U.S. Adults with Genital Infection, 2014



Percentage of U.S. Adults with High Risk Genital Infection, 2014



QAPs: Other Opportunities: Mgen

As many as one-in-five adults are infected with *Mycoplasma genitalium* (Mgen)

1 in 5
are infected with Mgen

- Mgen is a common cause of urinary and reproductive tract infections
- Mgen is extremely slow-growing and difficult to culture ex-vivo, hampering access to needed 3rd party test control materials
- Without confirmation of validity, testing of patients will not be reimbursed
- The resulting chronic inflammation is a common cause of discomfort, infertility, and miscarriage
- Without independent test control materials and related PT and QMS, test validity cannot readily be confirmed
- The lack of reimbursement results in no widespread testing for this common infection

Viral Transport Medium (VTM)

→ Why this Project?

Expertise in large-scale biological media production enables Microbix to provide Ontario with a secure local supply of high-quality VTM.

→ What is VTM?

VTM is the vial of liquid into which swabs of patient test samples are placed. VTM preserves the stability of any virus that is present until it can be tested by the clinical lab.

Specific Microbix Activities:

Identified Need of Ontario
Outreach to MEDJCT
Security of supply being key

Applied to OTF Program
Project Selected by Ontario
Supported due diligence by Ontario

Negotiation of Terms
Mutually-satisfactory Contracting
Announcement on October 13

Project Implementation
Validation & Scale-up Underway
In new spaces at 2nd site

Any shortage of VTM means that nucleic-acid (PCR) testing for COVID-19 disease cannot be conducted. Ontario currently has no domestic manufacturers of VTM.

Viral Transport Medium (VTM)

→ Sales Potential for VTM

Every test now conducted by Ontario requires a vial of VTM – Currently at 30,000 to 50,000 tests per day and targeted to increase to 60,000.

- Microbix is 1st gearing-up to supply at a level of 50,000 units per week (early calendar 2021).
- Full automation to a level of up to 60,000 units per day is targeted before YE f2021.
- **Normal-time pricing for VTM is in the range of $4-6 per vial.**
- **A first batch of ~50,000 vials for Ontario will be completed in January, followed by more.**

It is expected that gross margins from VTM production will be favorable.

VTM is therefore believed to represent a large value-creation opportunity.

Fiscal 2020 Results & 2021 Targets

COVID-19 has changed sales for antigens and HPV, while creating its own opportunities.

- Of all infectious disease testing, only that for COVID-19 is up in 2020 (and mostly RT-PCR).
- Microbix has created & launched leading COVID-19 products with its new QAPs & VTM.
- First international sales of COVID-19 QAPs were not enough to offset HPV delays and lower Y/Y sales of antigens.
- Many supply-chain issues were successfully averted, but one unforeseen issue resulted in multiple bioreactor batch losses in Q3.
- Microbix is targeting stabilized antigen sales in fiscal 2021, accelerating and strong growth in QAPs revenues, and material sales from the new VTM opportunity.

MICROBIX

Summary & Current Outlook

F2020 was a year of challenges and opportunities for life sciences firms

1. Created, registered, and launched additional QAPs, including for HPV and SARS-CoV-2. More innovative new QAPs planned.
2. Built global distributor and customer base for novel, value-added QAPs. Sales from that network are expected to grow.
3. Implemented full-scale use of new production technology (bioreactors). While Q3 had an unforeseen issue, this transition is now enhancing antigen gross margin & capacity.
4. Secured VTM opportunity with grant $ & procurement LOI.
5. Improving margins and bottom-line results to drive share price appreciation. We remain committed to this goal.

Corporate Targets for 2021

Surging Sales

Mushrooming Margins

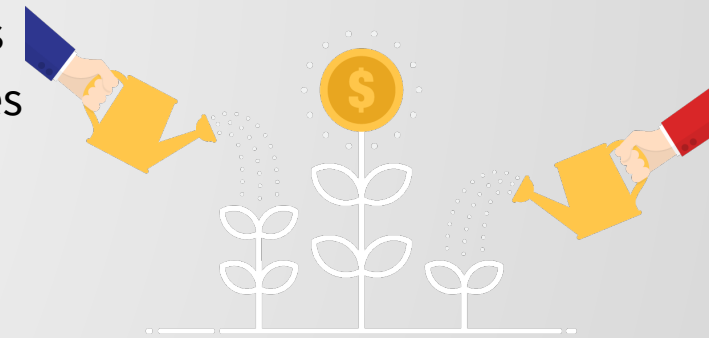
Expanding Earnings

Climbing Cashflow

Microbix's Opportunities

Actions

- ✓ **Continue Targeting Sales Growth** for antigens
- ✓ **Register/Launch New Products** in QAPs™ lines
- ✓ **Deliver as Key Supplier** of VTM for Ontario
- ✓ **Enhance Gross Margins** across all products
- ✓ **Drive Cash Flow** from operations



Results

- ✓ Repositioned as an Innovative Medical Devices Co. (now @ 10 reg'd products)
- ✓ Double-Digit Annual Sales Growth (potentially even more)
- ✓ Positive and Increasing Net Earnings
- ✓ Share Price Appreciation
- ✓ Increasing Business Development Opportunities

Takeaway Messages

MICROBIX

A Real Business – Meaningful sales to a broad range of international customers

Big Opportunities – Realizable potential from in-scope operations and projects

- Growing sales of antigens at improving margins
- New offerings and customers for QAPs™ and VTM™ product lines

Responsible Management – Financial and operational controls are in place

An Investable Company – We ask that you evaluate Microbix for your portfolio

THANK YOU

MICROBIX
BIOSYSTEMS INC.

Cameron Groome
CEO, President, and Director

cameron.groome@microbix.com

Partnering Opportunity

→ Kinlytic® Urokinase

Microbix's expertise in biologicals led to its securing rights to this clot-buster drug, which is approved in the USA and Canada.

- For sales to resume, production of the drug must be restarted and the new product shown to be equivalent to past batches.
- Microbix has validated a path back to market with the U.S. FDA, obtained detailed 3rd party quotations, and is now moving to secure development partners to fund the project.

Specific Kinlytic Activities:

Refined Project Scope
Catheter Clearance Indication
U.S. market as a value driver

Established Precise Costs
Quotes from qualified vendors
Remove risk for partners

Engaged Licensing Agent
Well-respected NYC firm
More effective project outreach

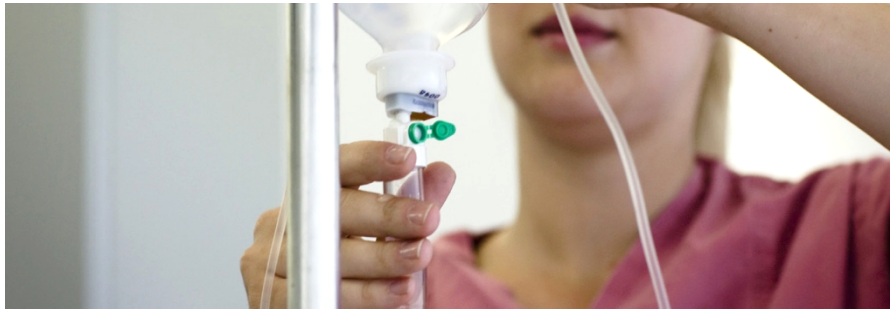
Prepared for Due Diligence
Electronic Data Room Created
~1,300 pp. updated and organized

A partner to return Kinlytic to the U.S. market is now being sought. Microbix's goal is to secure a material upfront fee and retain a meaningful proportion of economics.

Partnering Opportunity

→ Kinlytic® Urokinase

Urokinase is a human protein that dissolves blood clots and has been used to treat multiple clot-related disorders in millions of patients.



- The U.S. return of Kinlytic starts with its FDA-approved use for catheter clearance.
- Clearing blood clots from I.V. catheters is now a **>US$350 million monopoly** in the USA, held by tPA and growing by about 10% annually.
- **Microbix aims for sales in excess of US$200 million by breaking that monopoly.**
- **Refiling is achievable in 2.5 years with investment of less than US$20 million.**

Kinlytic is therefore believed to represent a large value-creation opportunity.

Multiple qualified parties are engaged in confidential partnering discussions.