



# AROA BIOSURGERY (ARX)

APRIL 2022

Unlocking regenerative healing for *everybody*



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# AROA at a Glance

Well established high-growth soft tissue regeneration company



**NZ\$39m<sup>1</sup>**

FY22 product sales 81% higher than FY21



**Gross Margin**

Forecasted FY22 73-75%  
c.f. FY21 68%



**5 million+**

AROA products applied in treating patients



**6 patented product families**

selling in United States



**Regulatory Approvals**

in 50 countries



**AROA ECM™ platform**

for new products, line extensions  
& enables AROA's "dead-space"  
NPWT platform



**>40**

Peer Reviewed Publications



**>US\$2.5b<sup>2</sup> TAM**

for existing products



**> 230**

personnel<sup>3</sup>

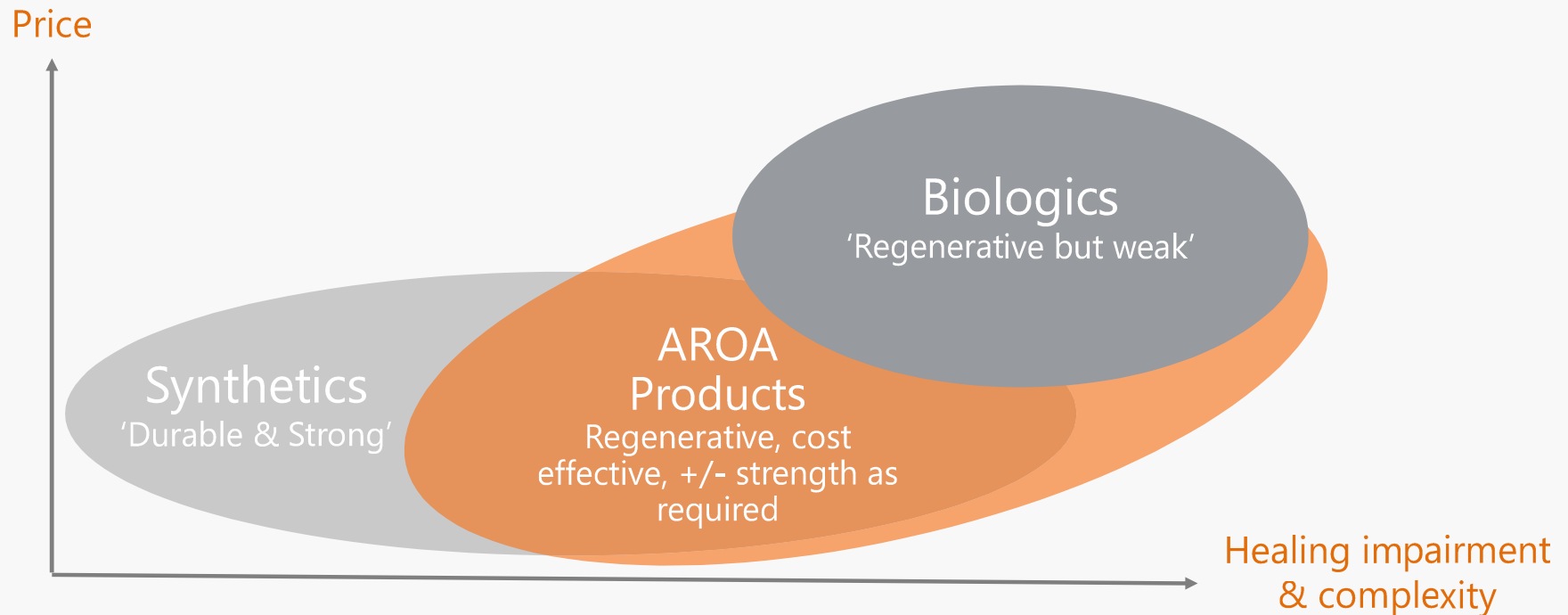
1. Unaudited

2. SmartTRAK BiomedGPS data 2020; DRG Millennium Research data; Hernia Repair Devices, 2020, AROA management estimates; DRG Millennium Research, Breast Implants & Reconstructive devices, 2018. Market data was prepared before the onset of COVID-19, the economic effect of which is currently not possible to predict with any certainty. Consequently, while the Company has no reason to believe that the market data does not remain accurate based on the relevant markets operating normally, the impact of COVID-19 on the market data that is referenced is not possible to currently predict with any certainty and investors are cautioned against placing undue reliance on such data.

3. AROA NZ & US employees.

# Unlocking Regenerative Healing for *Everybody*

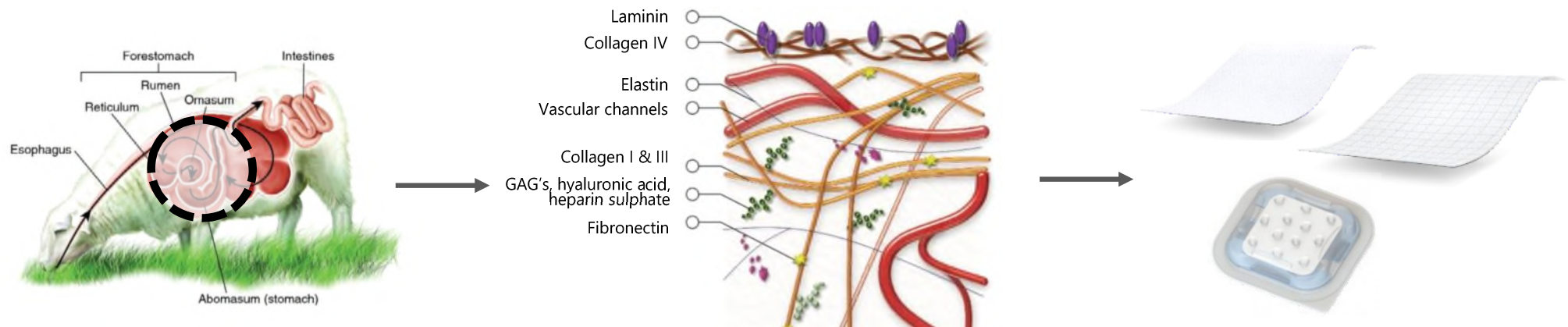
AROA ECM™ technology offers leading regenerative performance at a significantly lower cost than other biologics enabling more patients to have access to the benefits of regenerative healing



Note: AROA Management compilation based on peer reviewed publications. See Appendix 2 – References 1-46

# AROA ECM - An Ideal Foundation for Regenerative Healing

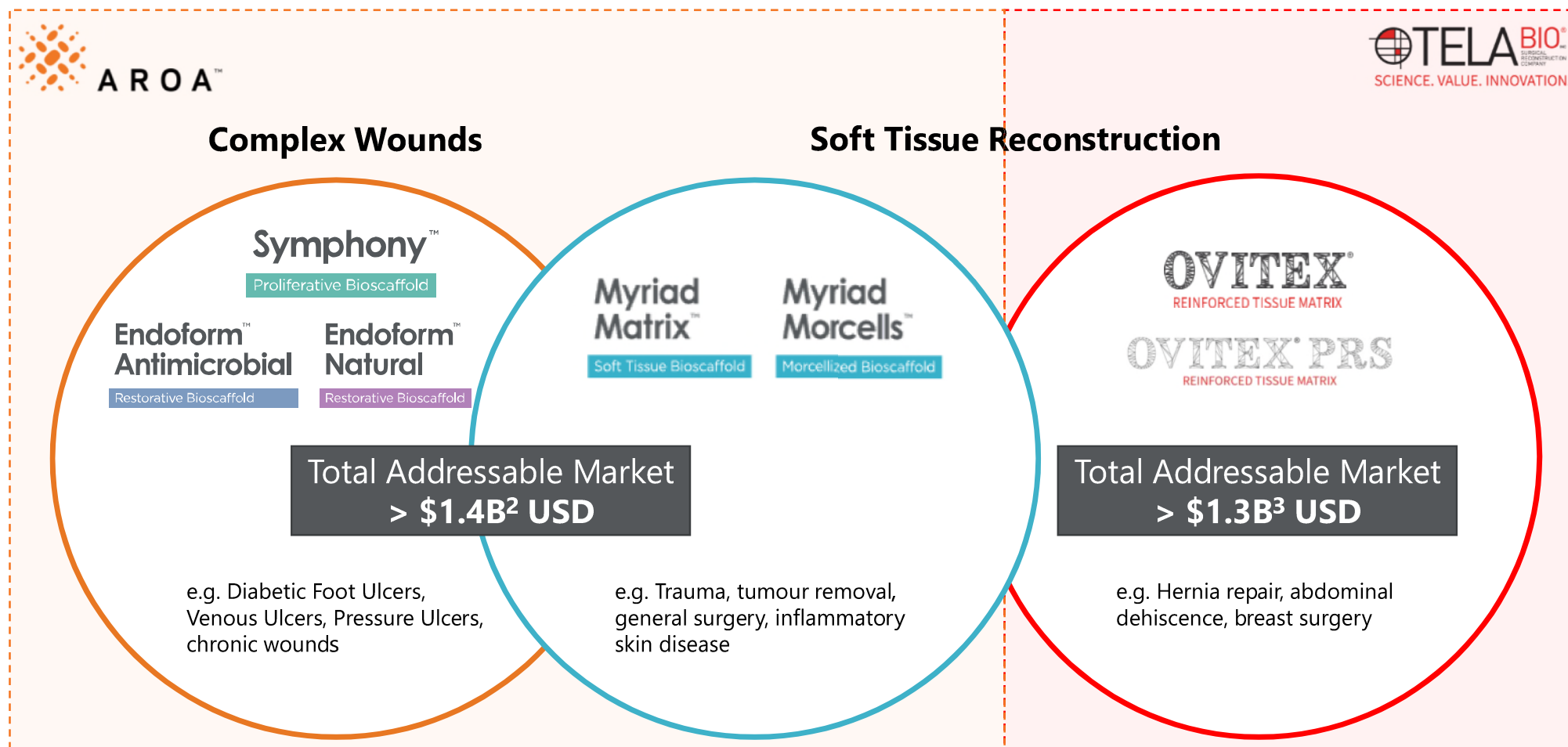
Unique Extracellular Matrix (ECM) platform technology derived from ovine forestomach



Source	AROA ECM Technology (Structural and Biological Building Block)	Products
<ul style="list-style-type: none"> <li>Ovine Forestomach has natural characteristics that are desirable in a regenerative soft tissue technology               <ul style="list-style-type: none"> <li>Thick porous ECM with basement membrane</li> <li>Highly vascular</li> <li>Constantly renewing &amp; growing</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>AROA ECM (gently processed Ovine Forestomach Matrix) contains:               <ul style="list-style-type: none"> <li>Native porous structure</li> <li>Residual vascular channels</li> <li>150+ signalling molecules and substrates known to be important in healing</li> </ul> </li> <li>Clinically this translates to ready to use scaffold and biology which the body uses to direct healing</li> </ul>	<ul style="list-style-type: none"> <li>All products that utilise the AROA ECM provide a short-cut to growing new tissue and an associated blood supply</li> <li>Each product is engineered for the challenges of a specific use case</li> </ul>



# Substantial Growth Opportunities > \$2.5B<sup>1</sup> TAM



1. SmartTRAK BiomedGPS data 2020; DRG Millennium Research data; Hernia Repair Devices, 2020, AROA management estimates; DRG Millennium Research, Breast Implants & Reconstructive devices, 2018.
2. SmartTRAK BiomedGPS data 2020. Aroa management estimates.
3. DRG Millennium Research data; Hernia Repair Devices, 2020. DRG Millennium Research, Breast Implants & Reconstructive devices, 2018.

OviTex and TELA Bio are trademarks of TELA Bio, Inc.



# AROA ECM Evidence To Date

78

PRESENTATIONS/  
PUBLICATIONS

**Endoform™**

- Advanced ECM technology for acute and chronic wound healing
- Complex non-healing wounds
- Exposed bone and tendon
- Wounds shown to close up to ~20% faster vs traditional collagen dressings<sup>1</sup>

Tolerated a contaminated field and resisted infection

18

PRESENTATIONS/  
PUBLICATIONS

**Myriad™**

- Surgical matrix for dermal and soft tissue reconstruction
- Low complication rates<sup>2-6</sup>
- Facilitates rapid tissue integration<sup>2-6</sup>
- Tolerates contaminated tissue<sup>2-6</sup>

Rapid formation of well vascularized tissue

27

PRESENTATIONS/  
PUBLICATIONS

**OVITEX®**  
REINFORCED TISSUE MATRIX

- Reinforced bioscaffold for abdominal wall repair
- Ventral, inguinal and hiatal hernia
- Low hernia recurrence<sup>7-9</sup>
- Low SSI/SSO rates in contaminated sites<sup>7-9</sup>

No negative inflammatory response reported

Reduced surgical complexity

1. Reduction in time to wound closure of **of 11.3% to 21.4%**. Bosque B, Frampton C et al. Retrospective real-world comparative effectiveness of ovine forestomach matrix and collagen/ORC in the treatment of diabetic foot ulcers (2021). Int Wound J. Available online at: <https://onlinelibrary.wiley.com/doi/10.1111/iwj.13670> 2. Desvigne, M. N., K. Bauer, K. Holifield, K. Day, D. Gilmore and A. L. Wardman (2020). "Case Report: Surgical Closure of Chronic Soft Tissue Defects Using Extracellular Matrix Graft Augmented Tissue Flaps." Frontiers in Surgery 7(1/3). <https://www.frontiersin.org/articles/10.3389/fsurg.2020.559450/full> 3. Chaffin A et al. Surgical reconstruction of pilonidal sinus disease with concomitant extracellular matrix graft placement: a case series. Journal of Wound Care; Vol 30, No. 7, July 2021. <https://www.magonlinelibrary.com/doi/full/10.12968/jowc.2021.30.Sup7.S28> 4. Chaffin, A. E. and M. C. Buckley (2020). "Extracellular matrix graft for the surgical management of Hurley stage III hidradenitis suppurativa: a pilot case series." J Wound Care 29(11): 624-630. <https://www.magonlinelibrary.com/doi/full/10.12968/jowc.2020.29.11.624> 5. Bohn, G. A. (2020). "Using Ovine Extracellular Matrix in Difficult to Close Excisions of Common Skin Cancer: an Evolving New Technique." Surg Technol Int 37: 49-53. <https://pubmed.ncbi.nlm.nih.gov/33276415/> 6. Bohn, G. A. and A. E. Chaffin (2020). "Extracellular matrix graft for reconstruction over exposed structures: a pilot case series." J Wound Care 29(12): 742-749. <https://www.magonlinelibrary.com/doi/full/10.12968/jowc.2020.29.12.74217> 7. Parker, M. J. et al. A novel biosynthetic scaffold mesh reinforcement affords the lowest hernia recurrence in the highest-risk patients. Surg Endosc. 2020. <https://doi.org/10.1007/s00464-020-08009-1> 8. Sawyer, M. A. J. New Ovine Polymer-Reinforced Bioscaffold in Hiatal Hernia Repair. JSLS.2018; Oct-Dec; 22(4): e2018.00057. 9. Ferzoco, F. J. Early experience outcome of a reinforced Bioscaffold in inguinal hernia repair: A case series. International Journal of Surgery Open. 2018; 12: 9-11

## Myriad Matrix

- Suitable for a wide range of reconstructive procedures requiring implant or dermal regeneration
- Especially suited to inflammatory soft tissue disorders (e.g. anal fistula, pilonidal sinus, complex chronic wounds, surgical dehiscence, NSTI)<sup>1,2,3,4</sup>
- Low rates of surgical complications reported (e.g. infection, dehiscence, seroma)<sup>1,2,3,4</sup>
- Rapid tissue regeneration<sup>1,2,3,4</sup>
- Well vascularized tissue<sup>1,2,3,4</sup>
- No infections reported<sup>1,2,3,4</sup>
- Compatible with contaminated surgical fields<sup>1,2,3,4</sup>

~1000 procedures completed to date across a range of complex reconstructions and implants



1. Chaffin, A. E. and M. C. Buckley (2020). "Extracellular matrix graft for the surgical management of Hurley stage III hidradenitis suppurativa: a pilot case series." J Wound Care 29(11): 624-630. 2. Bohn, G. A. and A. E. Chaffin (2020). "Extracellular matrix graft for reconstruction over exposed structures: a pilot case series." J Wound Care 29(12): 742-749. 3. Desvigne, M. N., K. Bauer, K. Holifield, K. Day, D. Gilmore and A. L. Wardman (2020). "Case Report: Surgical Closure of Chronic Soft Tissue Defects Using Extracellular Matrix Graft Augmented Tissue Flaps." Frontiers in Surgery 7(173). 4. Chaffin, A. E., S. G. Dowling, M. S. Kosyk and B. A. Bosque (2021). "Surgical reconstruction of pilonidal sinus disease with concomitant extracellular matrix graft placement: a case series." J Wound Care 30(Sup7): S28-S34.

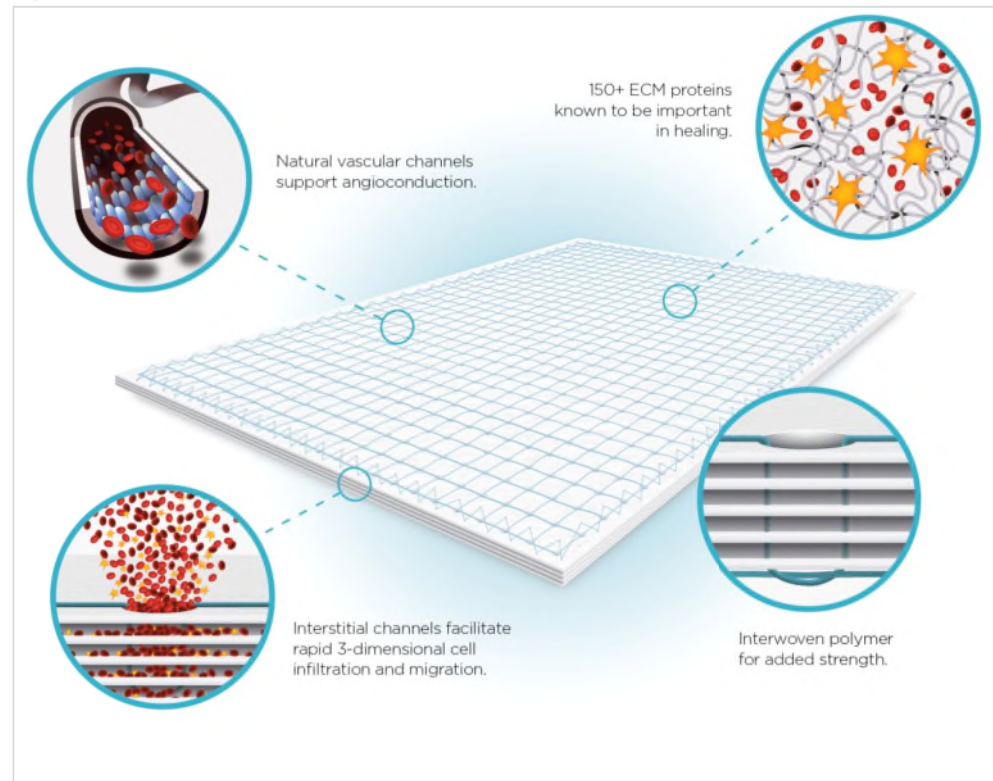


## Reinforced Biologic – OviTex/Myriad Ultra™

- Thoughtfully engineered reinforced biologic for abdominal wall repair
- Low hernia recurrence reported<sup>1,2,3,4</sup>
- Low rate of complications, infections reported<sup>1,2,3,4</sup>
- Moderate-to-complex ventral hernia patients<sup>1,2,3,4</sup>
- Compatible with minimal invasive procedures<sup>2</sup>
- Tolerates a contaminated site<sup>1,2,3,4</sup>

~10,000 hernia procedures across multiple hernia types

1. Ferzoco, F. J. (2018). "Early experience outcome of a reinforced Bioscaffold in inguinal hernia repair: A case series." International Journal of Surgery Open 12: 9-11. 2. Sawyer, M. A. J. (2018). "New Ovine Polymer-Reinforced Bioscaffold in Hiatal Hernia Repair." JSL 22(4). 3. Parker, M. J., R. C. Kim, M. Barrio, J. Socas, L. R. Reed, A. Nakeeb, M. G. House and E. P. Ceppa (2020). "A novel biosynthetic scaffold mesh reinforcement affords the lowest hernia recurrence in the highest-risk patients." Surg Endosc. 2020 Sep 24. doi: 10.1007/s00464-020-08009-1. 4. DeNoto, G., E. P. Ceppa, S. J. Pacella, M. Sawyer, G. Slayden, M. Takata, G. Tuma and J. Yunis (2021). "A Prospective, Single Arm, Multi-Center Study Evaluating the Clinical Outcomes of Ventral Hernias Treated with OviTex® 1S Permanent Reinforced Tissue Matrix: The BRAVO Study 12-Month Analysis." J. Clin. Med. 10(21): 4998



# Catalysts



## Post-COVID

Improving access, hospital capacity & operating environment, more advanced sales pipeline.



## AROA Direct Sales

Fully dedicated field sales team.  
Myriad expected to drive growth.  
FY'22 41% growth on FY'21  
Add 10-15 sales representatives.



## TELA Bio<sup>®</sup> Momentum

Clinical outcomes & cost savings driving increasing adoption, Guidance 36-53% growth CY22 vs CY21<sup>1</sup>



## Product Synergies

Myriad Matrix, Myriad Morcells, Symphony & Endoform



## Clinical Data

Myriad Registry (2 publications)  
Symphony pilot completed  
Symphony RCT initiated.  
Enivo pilot study published  
Endoform VLU study published



## HealthTrust

Myriad Matrix and Myriad Morcells added to HealthTrust GPO contract



## Pipeline Products

AROA & TELA Bio line extensions  
Enivo preclinical publication  
Enivo FDA submission



## Global Expansion

Regulatory approval in 49 countries,  
23 distributors appointed and actively selling

1. TELA Bio, Inc. press release, published 21 March 2022.



# Q&A

Unlocking regenerative healing for *everybody*



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New Zealand

Unlocking regenerative healing for *everybody*



# Appendix



# Soft Tissue Reconstruction Technologies

## Biologics and Synthetics have different properties and use cases

Product Category	Regeneration	Inflammation	Cost	Strength	Infection Resistance	Infection Resilience	Use Case	Unique selling point
Permanent Synthetics	Low <sup>1</sup>	High <sup>2</sup>	Low <sup>1</sup>	High <sup>3-5</sup>	Low <sup>6</sup>	High <sup>7</sup>	Hernia <sup>8</sup>	Cost & strength <sup>9-11</sup>
Absorbable Synthetics	Low <sup>1,12</sup>	High <sup>2</sup>	Moderate <sup>1</sup>	Moderate – High <sup>3</sup>	Low <sup>13</sup>	High <sup>1</sup>	Hernia <sup>10</sup>	Cost & strength, absorbed <sup>14</sup>
Existing Biologics	Moderate to High <sup>15,16</sup>	Low to Moderate <sup>17,18</sup>	High <sup>3,19</sup>	Low-Moderate <sup>3,19</sup>	Moderate <sup>20,21 22</sup>	Low –Moderate <sup>23</sup>	Soft tissue reconstruction & Hernia <sup>3,13,24,25</sup>	Regenerative healing, less scarring <sup>26-29</sup>

## ARO A ECM competitive advantage

All ARO A ECM Products <sup>A,B,C,D,E</sup>	High <sup>30-32</sup>	Low <sup>33,34</sup>	Moderate <sup>35</sup>	Moderate <sup>36</sup>	Moderate <sup>37</sup>	Moderate <sup>31,38</sup>	Complex wounds & soft tissue reconstructions <sup>30,31,39-42</sup>	Improved rate & quality of regenerative healing <sup>35-43</sup> , & similar costs to absorbable synthetics
Reinforced Bioscaffolds <sup>D,E</sup>	High <sup>44,45</sup>	Low <sup>45</sup>	Moderate	High <sup>36</sup>	Moderate <sup>45</sup>	Moderate <sup>45</sup>	Hernia <sup>45,46</sup>	Benefits of Endoform with higher strength <sup>45</sup> Similar cost to absorbable synthetics

Products: A. Endoform Dermal Template (Natural/Antimicrobial), B. Myriad, C. Symphony, D. Ovitex, E. Ovitex PRS.  
Note: Aroa Management compilation based on peer reviewed publications: See Appendix 2 – References 1-46.

positive attribute*	neutral attribute*	negative attribute*
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# AROA PRODUCT RANGE

## ADDRESSES A WIDE RANGE OF APPLICATIONS AND LARGE ADDRESSABLE MARKETS

	Brand name	Use case	FY'18	FY'19	FY'20	FY'21	FY'22	FY'23	US TAM (USD)	Sales Channel	Launch
Existing Commercial Products	<b>Endoform Natural &amp; Antimicrobial</b>	Stalled complex wounds							\$78m <sup>1</sup>	AROA	FY'13
	<b>OviTex</b>	Hernia							\$845m <sup>2</sup>	TELA Bio	FY'17
	<b>Myriad</b>	Dermal & implantable Reconstruction							\$200m <sup>3</sup>	AROA	FY'20
	<b>OviTex PRS</b>	Breast Reconstruction							\$463m <sup>4</sup>	TELA Bio	FY'20
	<b>Symphony</b>	Complex wounds & Limb salvage							\$1.15b <sup>5</sup>	AROA	FY'22 <sup>6</sup>
New Pipeline	<b>Enivo</b>	NPWT & Dead space management							TBD	AROA	FY'24 <sup>6</sup>

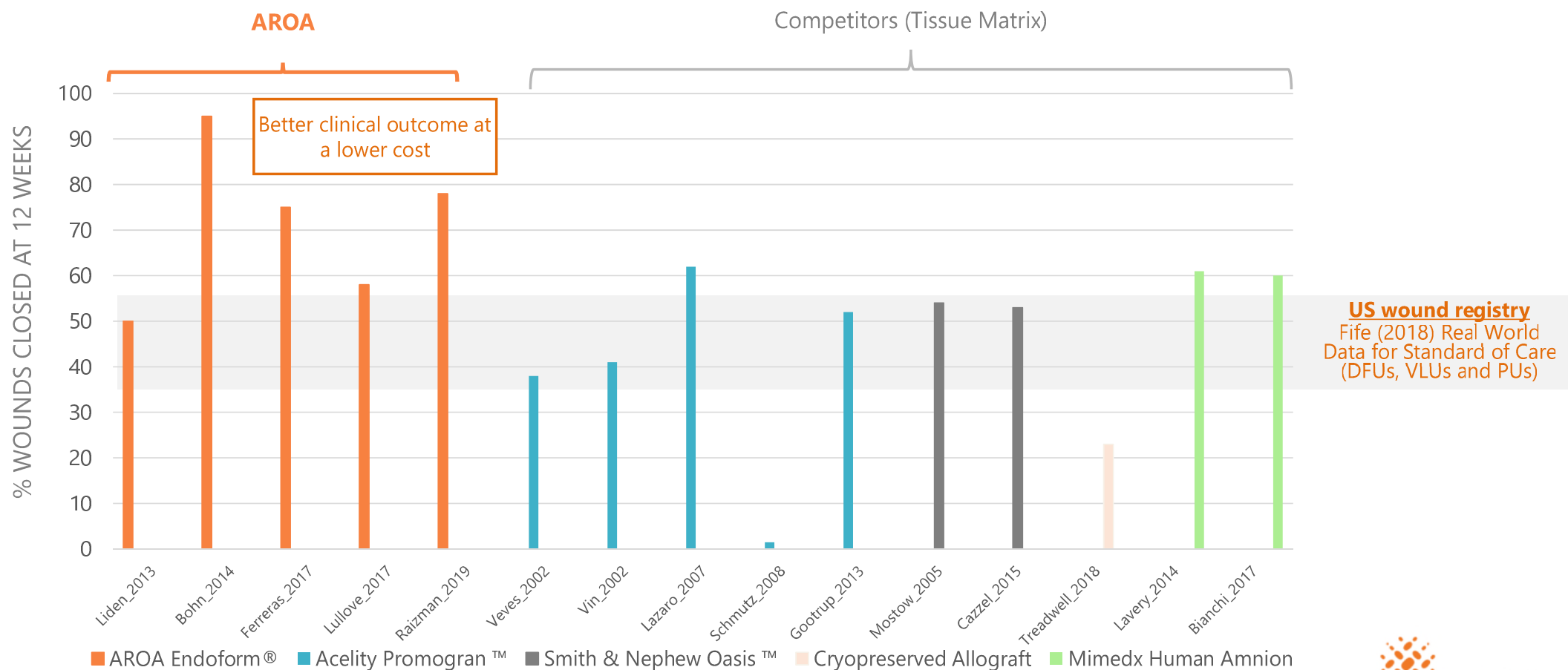
Sources: 1 and 5 SmartTRAK BiomedGPS data 2020, 2. DRG Millennium Research data, Hernia Repair Devices, 2020, 3 Aroa management estimates, 4. DRG Millennium Research, Breast Implants & Reconstructive devices, 2018.  
6. Based on current project timeline but remains subject to changes in circumstances and regulatory clearances.

\*Note: Symphony requires a new reimbursement code, whereas all other products fall under existing reimbursement codes



# Clinically effective wound products

Endoform demonstrates increased wound closure rates at 12 weeks in complex wounds compared to market leading biologics which lowers the cost of treating patients



# BRAVO Clinical Study

## 91 patient multi-centre study with simple and complex ventral hernias in United States

Product Name	Category	Hernia recurrence rate <sup>1</sup>	Number of hernia recurrence <sup>1</sup>	Number of patients who completed follow up	Follow up period Months
Ovitex (Aroa)	Reinforced Tissue Matrix	2.6% <sup>2</sup>	2	76	12
Ovitex (Aroa)	Reinforced Tissue Matrix	0% <sup>2</sup>	0	51	24
Phasix (CR Bard)	Resorbable Synthetic Mesh	5%	5	95	12
Phasix (CR Bard)	Resorbable Synthetic Mesh	12%	11	95	18
Phasix (CR Bard)	Resorbable Synthetic Mesh	23%	19	82	36
Strattice (Lifecell)	Biologic Matrix	22%	15	69	12
Strattice (Lifecell)	Biologic Matrix	33%	33	67	24



1. The level of recurrence at 90 days, 12 & 24 months are key metrics and have major cost implications for surgeons, hospitals, payors and patients.

2. Hernia recurrence rate based on number of hernia recurrences reported in patients who completed follow up and patients who reported recurrent hernia before the specified follow up period. Other clinical literature and conference presentations were based on all patients treated including those who did not complete follow up.

- Data for first 50 patients at 24 months from BRAVO shows **significantly better outcomes compared to market leaders**
- Full data for 24 months H2 2021



# Sales Channels

Channel	Products	Target Specialties	Call Point	Sales Force (FTE)	Commercial Strategy
	Endoform	Physicians, WOCN's/RN's, Podiatric	Outpatient Wound Centers	8 Inside	<ul style="list-style-type: none"> <li>• Increase Endoform utilization in current customer base through Antimicrobial &amp; Negative Pressure Wound Therapy campaigns – strong Q1 return</li> <li>• Grow new customer base through expansion of independent distributor network ("IDNs"), and targeting wound care centers with high volumes of debridement</li> </ul>
	Myriad	Physicians, Podiatric, Plastic, Trauma, Orthopedic surgeons	Inpatient Operating Rooms	29 field representatives independent	<ul style="list-style-type: none"> <li>• Submit Myriad to value analysis committees of large medical centers</li> <li>• Go deep when Myriad is approved</li> <li>• Use early success of Myriad Matrix to promote Myriad Morcells</li> <li>• Select distributor network supporting specific US geographies for fast approval and use by surgeons</li> </ul>
	OviTex, OviTex PRS (US & Europe rights)	General Surgeons, Plastic Surgeons	Operating Room	45 Sales territories as of 30 March 2021	<ul style="list-style-type: none"> <li>• Drive adoption</li> <li>• Increased utilization in accounts</li> <li>• New procedures and products</li> <li>• Catalysts               <ul style="list-style-type: none"> <li>○ Clinical Data – Bravo</li> <li>○ Group purchasing organisations &amp; IDN's</li> <li>○ Post COVID-19</li> <li>○ Expanded sales team</li> </ul> </li> </ul>
International (Ex-USA)	<ul style="list-style-type: none"> <li>• AROA is appointing distributors for the countries outside the US in which it has received regulatory approvals.</li> <li>• AROA has the rights for OviTex® and OviTex PRS outside of US and Europe</li> </ul>				



## Endoform Natural and Antimicrobial

A unique “Tissue Matrix” used to “short-cut” healing in complex wounds such as diabetic foot ulcers and venous ulcers



Endoform Natural is a single layer of the Aroa ECM.



Endoform Antimicrobial a single layer of Aroa ECM with 0.3% ionic silver embedded to provide broad spectrum antimicrobial activity

### Endoform Natural in a Diabetic Foot Ulcer

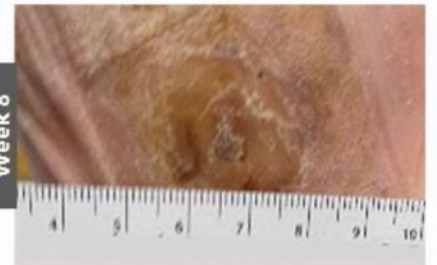
Week 0



Week 5



Week 8



## OviTex & OviTex PRS

“Reinforced Bioscaffold” which combines layers of the AROA ECM reinforced with polymers for abdominal wall repair (hernia) & soft tissue reinforcement

**OviTex®**

Licensed to Tela Bio for

**Hernia**



Ovitex® is an abdominal wall reinforcement product comprised of multiple layers of AROA ECM reinforced with permanent (polypropylene) or resorbable (PGA) polymers.

**OviTex® PRS**

Licensed to Tela Bio for

**Breast Surgery**



Ovitex® PRS is a soft tissue reinforcement product comprised of multiple layers of AROA ECM reinforced with permanent (polypropylene) or resorbable (PGA) polymers

**OviTex repair of a midline fascial dehiscence and fistula**



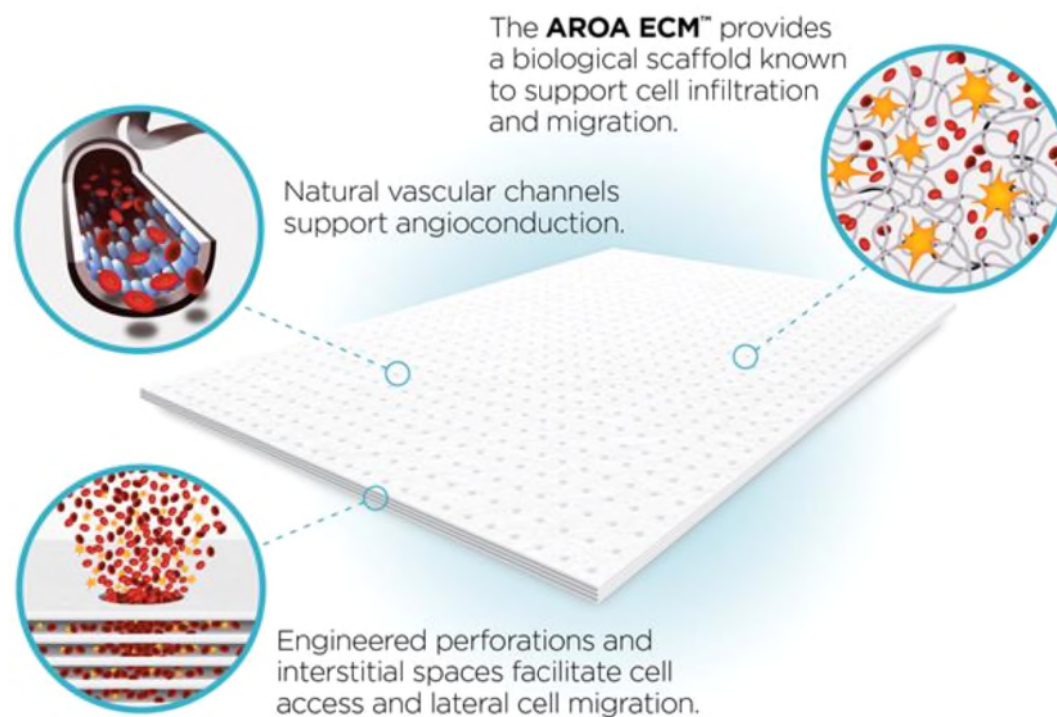
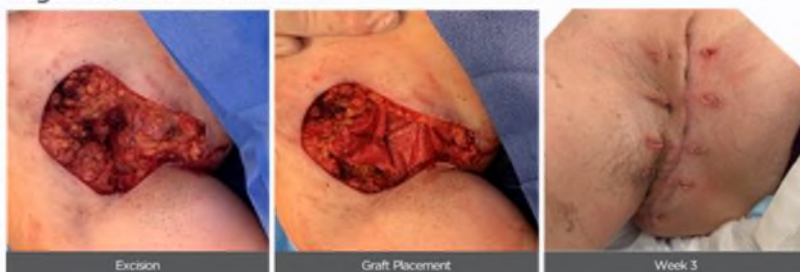
# Myriad Matrix

Engineered ECM containing layers of AROA ECM suitable for soft tissue reconstruction, both dermal repair and surgical implantation

Myriad Matrix placement prior to dermal skin graft



Myriad Matrix surgical implantation in an armpit post significant tissue excision

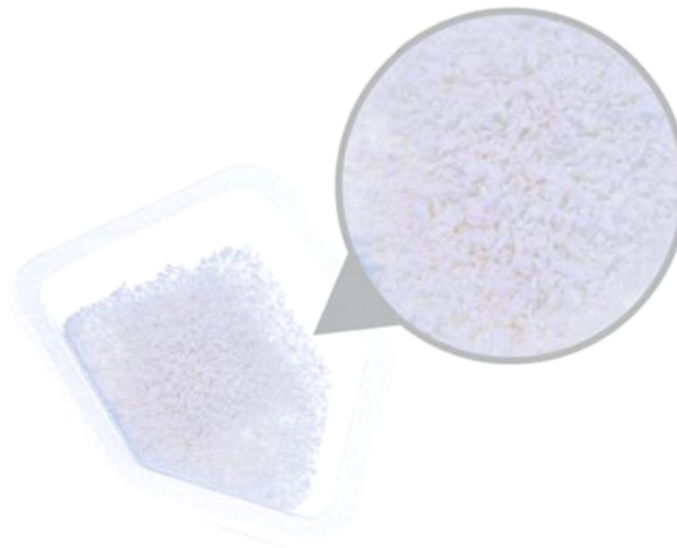




## Myriad Morcells

A 'Morcellized Bioscaffold' suitable for a wide range of dermal reconstruction and complex wound repair procedures

- Deliver a bolus of the AROA ECM biology to help kick start & sustain healing
- Conforms to optimise contact with irregular wound beds

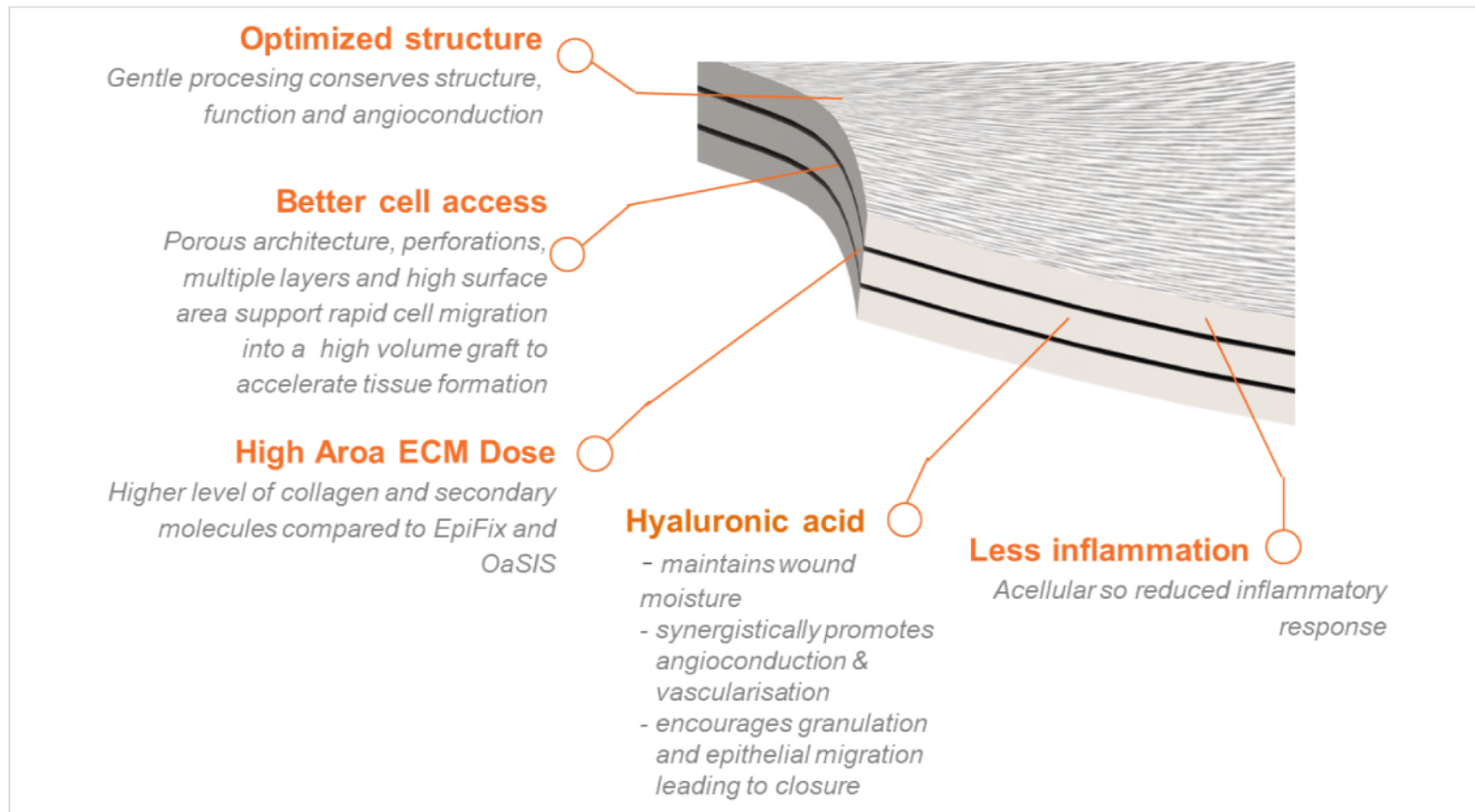


Used in combination Myriad Morcells works synergistically with Myriad Matrix to speed the establishment of new tissue



# Symphony

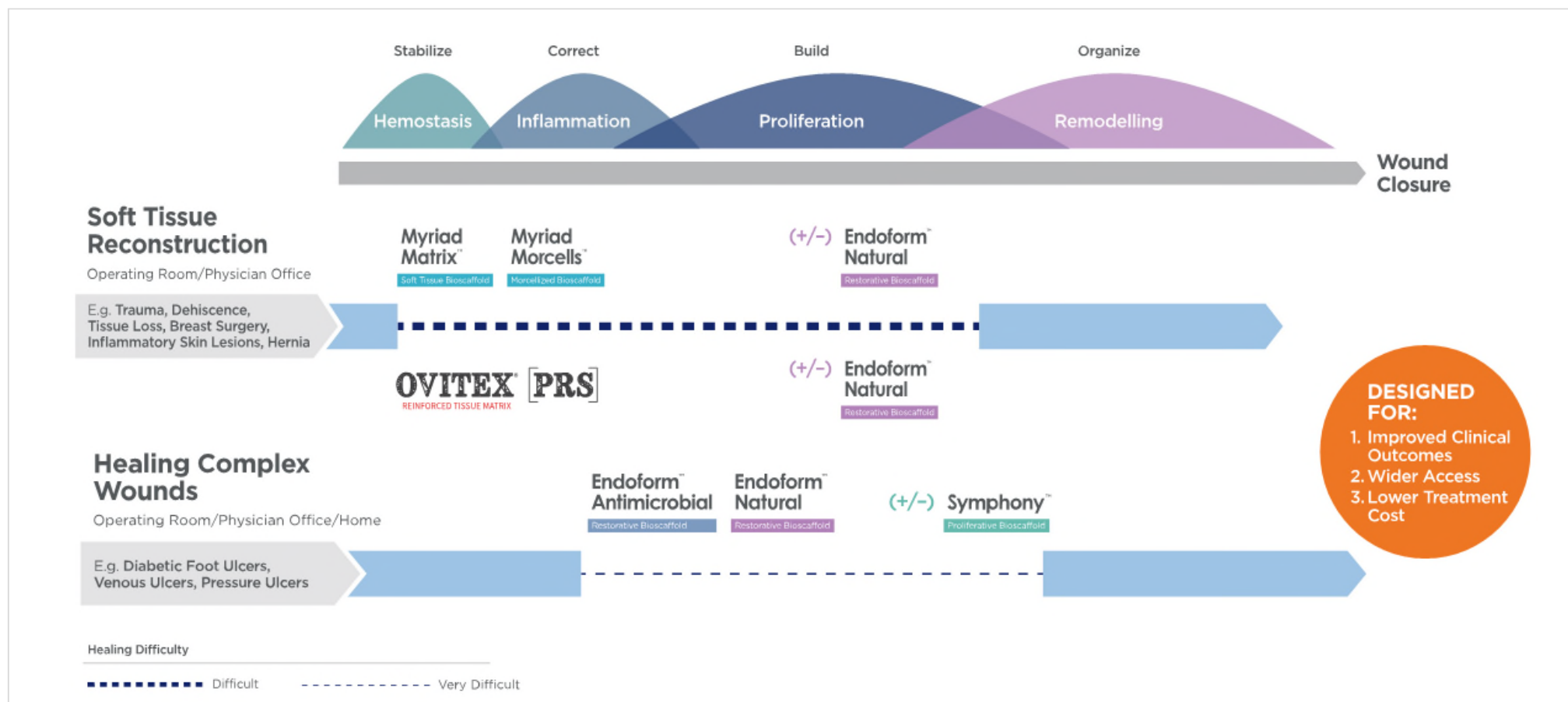
**“Proliferative Bioscaffold” for use in patients with severely impaired healing such as Diabetic Foot Ulcers & Venous Leg Ulcers in the outpatient wound care center setting**





# AROA Product Portfolio

Products to match wound type, stage & site of care



# Manufacturing and Production

Well established commercial manufacturing facility

## Unique process produces a high-quality product

- 12 successful Quality inspections since 2014
- 82 staff in Manufacturing and Quality Assurance
- 2 Sites – 5100 m2 total manufacturing floor

## Efficient and low cost

- Purposefully designed gentle & low-cost process & equipment
- Controlled clean room environment built to pharmaceutical standards



In-house manufacturing facility – Auckland, New Zealand



Manufacturing Facility

## Scalable

- Raw materials readily available in New Zealand
- Modular manufacturing design allows production to be easily scaled as sales volumes grow
- Production facility in place to support revenue of up to NZ\$100m.

# Board of Directors

AROA has a highly experienced Board with healthcare, operational and financial experience



**James Mclean**

Chair, Independent  
Non-Executive  
Director



**Brian Ward**

Managing  
Director and CEO



**Steven Engle**

Independent  
Non-Executive  
Director



**Philip McCaw**

Non-Executive  
Director



**John Pinion**

Independent  
Non-Executive  
Director



**John Diddams**

Independent  
Non-Executive  
Director

# Management team

AROA is led by a highly experienced management team with long tenure



**Brian Ward**

CEO, Founder  
BVSc MBA

+13 years with Aroa  
+25 years in life sciences

Commercial leadership  
roles including sales &  
marketing, strategy &  
corporate development

Previous experience:  
Baxter, Beecham,  
SmithKline Beecham



**James Agnew**

CFO  
BCom LLB

+8 years with Aroa  
+20 years in finance

Corporate finance,  
investment, M&A,  
strategic & ops planning,  
contracting & tax

Previous experience:  
MXM Mobile,  
Hyperfactory



**Brad Adams**

VP – Commercial (USA),  
MHA, BA

+2 year with Aroa  
+20 years in life sciences

Commercial leadership  
roles – sales management,  
marketing, commercial  
strategy

Previous experience: Acell,  
Smith & Nephew,  
HealthPoint, J&J



**Simone Von Fircks**

COO

+8 years with Aroa  
+30 years in life sciences

Biologics development  
tech transfer, facilities and  
regulatory & quality  
compliant up-scaled  
manufacturing

Previous experience:  
Baxter, Mologen



**Dr. Barnaby May**

CSO  
PhD

+ 13 years with Aroa  
+20 years in life sciences –  
research & development  
strategy, management and  
execution

Previous experience: UCSF  
& University of Canterbury

## **Appendix 2: Additional Materials**



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