

MDX

LIFE SCIENCES INC

Breakthrough Technologies in Tissue Vitality

Prof. Avraham Mayevsky, CSO

Management



Prof. Avraham Mayevsky, PhD
CSO

Professor Emeritus at Bar Ilan University in Israel.

World leader in monitoring of physiological activities in the brain and in tissue.

More than 240 academic publications.



Dr. David Platt, PhD
CEO

Founder of five public companies.

Author of > 50 patents.

Numerous academic publications.



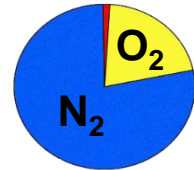
Ola Soderquist, CPA, CMA
CFO

30 years of Executive Leadership in public and private organizations.

MBA from Babson College.

Clinical Unmet Need

Compartment **Oxygen level (mmHg)** **Monitored Parameter**



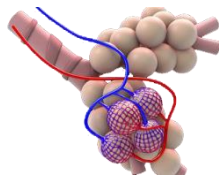
Atmospheric Air

160

21% O₂ in Air

Systemic Vital Signs

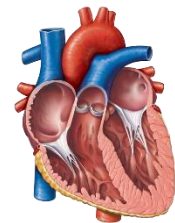
Systemic Monitoring



Respiratory System

100

Respiratory Rate & Volume
End-Tidal CO₂ (ET-CO₂)



Cardiovascular System

95

Heart Rate (HR)
Electrocardiogram (ECG)
Cardiac Output (CO)
Systemic Blood Pressure (BP)

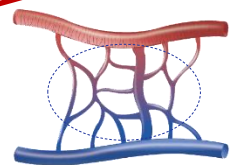


Macro-circulation

Systemic Hb Saturation (SaO₂)

Microcirculatory Oxygen Supply

Specific Monitoring

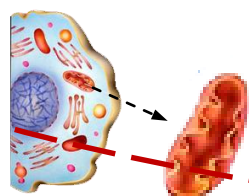


Tissue Microcirculation

20- 30

Tissue Blood Flow (TBF)
Tissue Blood Volume (TBV)
Microcirculatory Oxygenation (HbO₂)

Tissue Oxygen Balance

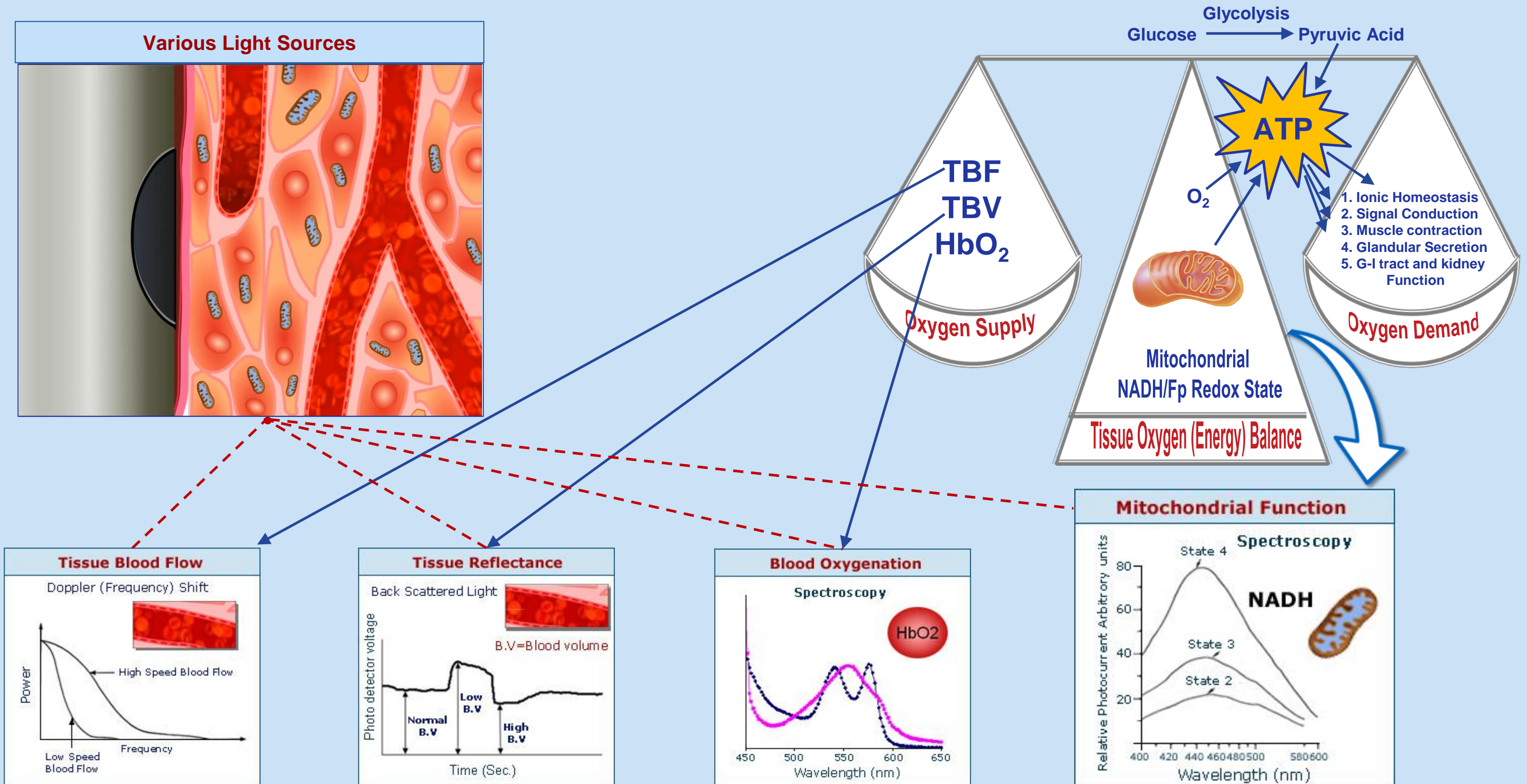


Intracellular

1- 2

Mitochondrial NADH Redox State

Continuous Real-time In-vivo Tissue Spectroscopy



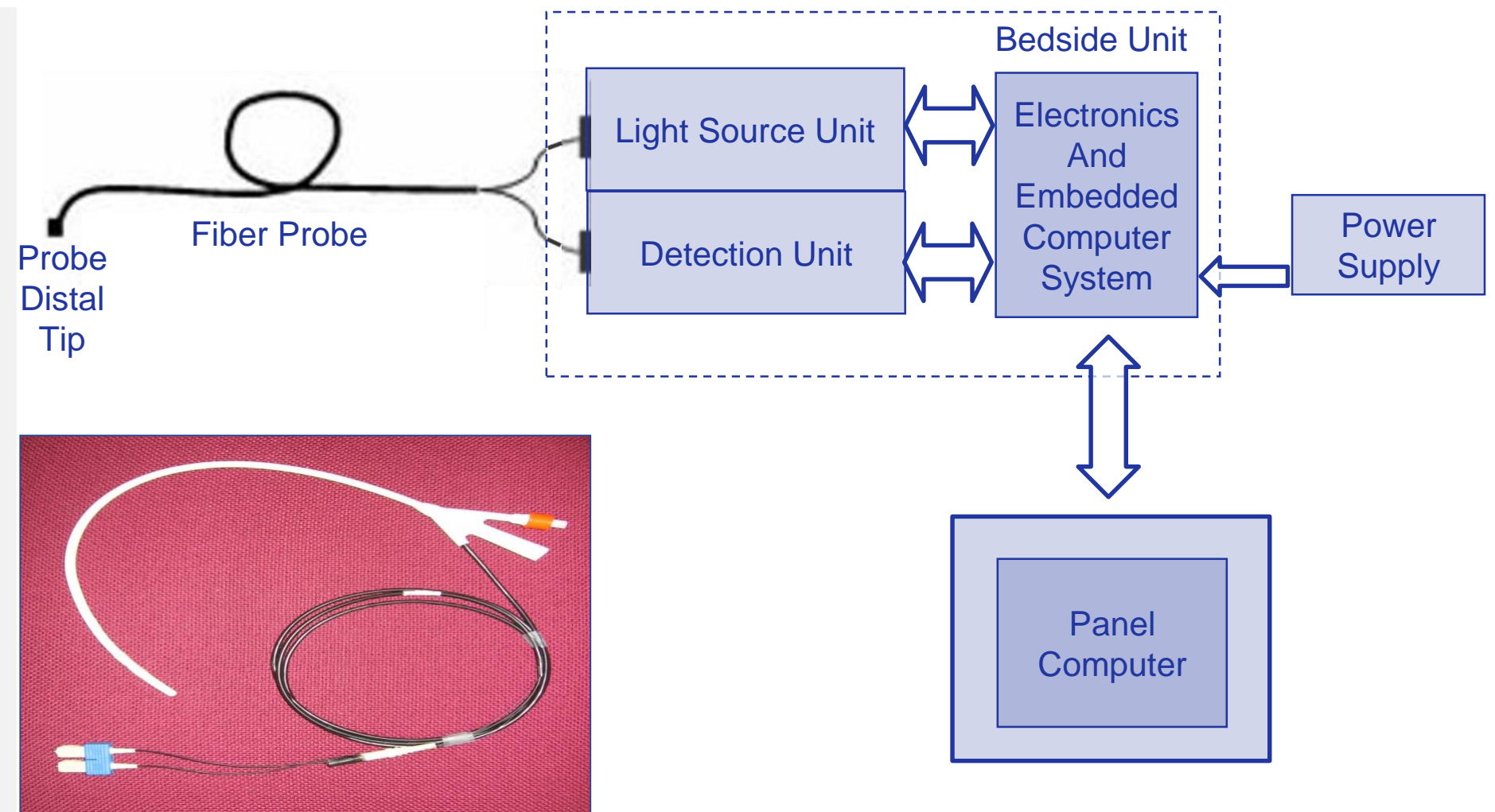
Technology

The MDX-Viewer consists of three components:

Main unit: contains the light source, optical detectors and the main signal processing components.

Monitor unit: displays the tissue monitored parameters and contains the MDX-Viewer operating user interface.

Probe accessory: contains the optical sensing flexible fiber bundle, connected to the main unit through an optical connector. The probe is integrated into an unique 3 way urinary (Foley) catheter.

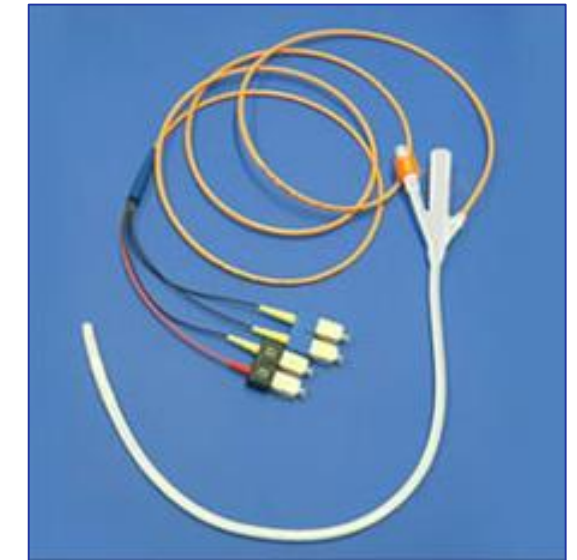


Initial Market Potential USA

MDX-Viewer-ICU

- 6,000 ICUs
 - 90,000 beds (*MDX-Viewer units potential*)
 - 6 million admissions/year (*Foley-Probes potential / Year*)
 - \$5,000 per day cost (*cost saving base*)

**Capital Equipment
per Patient Bed**



MDX-Viewer-NICU

- 12% premature (before 37th week of pregnancy), low-weight neonates
- 500,000 babies/year in US (15 million worldwide)
- 22,000 beds in US (*MDX-Viewer units potential*)



**Disposable non-Reusable Probes
per (N)ICU Patient**

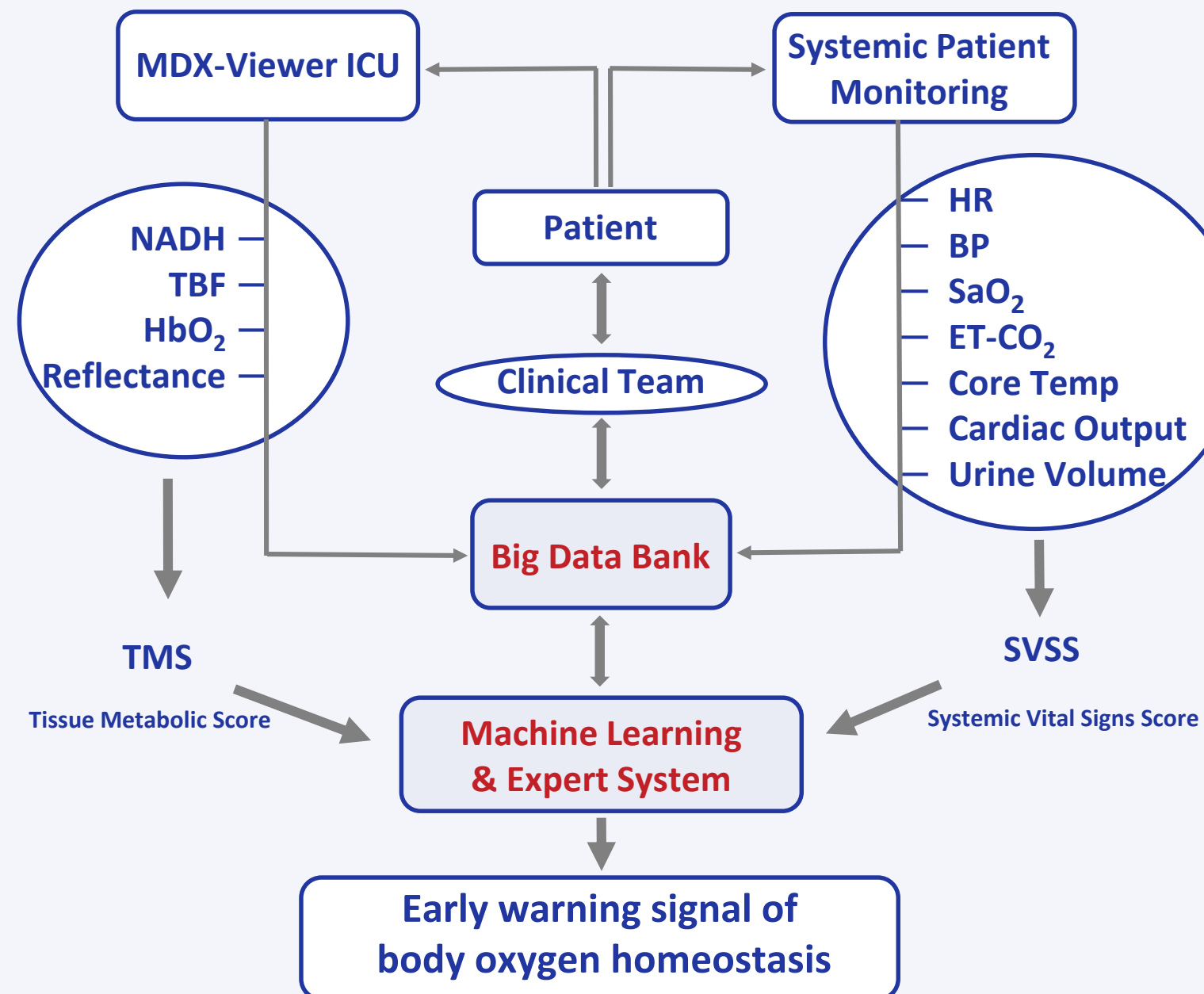


Total addressable market size: \$2.8 billion in Capital Equipment, and \$1.2 billion in Annual Recurring Revenue.

The next generation: MDX-Viewer-TMS

A prognostic Big Data platform built on blockchain technology and supported by machine learning and AI. The device integrates monitored parameters and systemic vital signs presenting a combined Tissue Metabolic Score serving as a preemptive warning signal of body oxygen homeostasis.

Monitoring in OR's and ICU's/NICU's



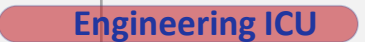



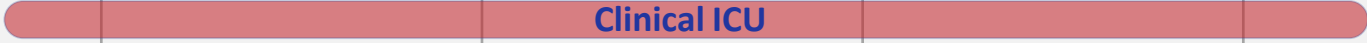

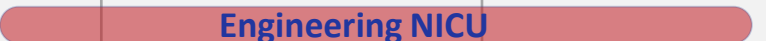
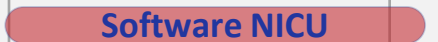





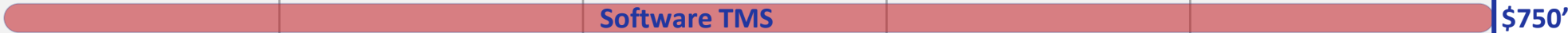


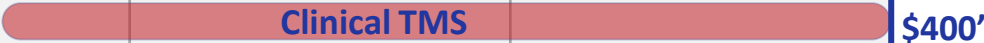


No competitors in NADH or Fully Integrated Monitoring

Systemic Monitoring	Organ/System	Monitored Parameter					Integrated ✓	
			Systemic Vital Signs	Cheetah Medical Drager Edan Instruments Edwards Lifesciences GE Healthcare LiDCO Masimo Medtronic Nihon Kohden Philips Pulsion Medical Systems Spacelabs Healthcare Welch Allyn ...				
	Respiratory System	Respiratory Rate & Volume End-Tidal CO ₂ (ET-CO ₂)						
	Cardiovascular System	Heart Rate (HR) Electrocardiogram (ECG) Cardiac Output (CO) Systemic Blood Pressure (BP)						
	Macro-circulation	Systemic Hb Saturation (SaO ₂)						
Specific Monitoring	Comparative Models		Moor - moorVMS-LDF Omegawave - Omegaflo Transonic - Costatus Vasamed - SensiLase	Perimed - PeriCam PSI	Cas Medical - Fore-Sight Hutchinson - InSpectra Masimo - SedLine Medtronic - INVOS Moor - moorVMS-NIRS Nonin - Equanox Omegawave - Bom-L1TRW Spectros - T-Stat	MDX-Viewer ICU	MDX-Viewer TMS	
	Tissue Oxygen Supply							
	Tissue Microcirculation	Tissue Blood Flow (TBF)	✓	✓	✗		✓	✓
		Tissue Blood Volume (TBV)	✗	✓	✗		✓	✓
		Microcirculatory Oxygenation (HbO ₂)	✗	✗	✓		✓	✓
	Cellular Oxygen Balance							
Intracellular	Mitochondrial NADH Redox State	✗	✗	✗		✓	✓	

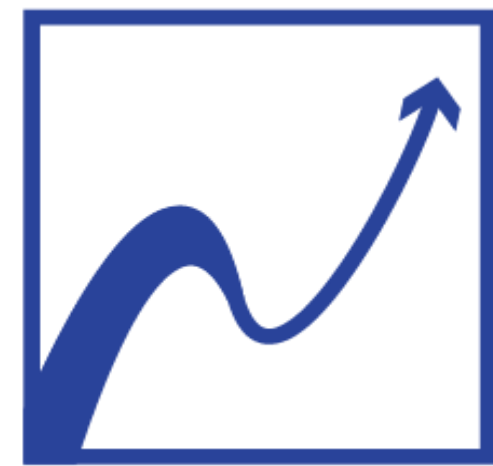


Development Plan

R&D, Regulatory and Marketing pathway

Activities	Month 1-3	Month 4-6	Month 7-9	Month 10-12	Month 13-15	Month 16-18	Month 19-21	Month 22-24
MDX-Viewer ICU \$1,875 Thousand		 Engineering ICU \$230'  Software ICU \$150'  R&D ICU \$150'						
				 Production & Certification ICU \$520'  Clinical ICU \$550'  Regulatory ICU \$275'				
MDX-Viewer NICU \$2,105 Thousand		 Engineering NICU \$460'	 Software NICU \$150'  R&D NICU \$150'					
					 Production & Certification NICU \$520'  Clinical NICU \$550'  Regulatory NICU \$275'			
MDX-Viewer TMS \$2,820 Thousand			 Engineering TMS \$460'	 Software TMS \$750'  R&D TMS \$750'				
						 Prod & Certif TMS \$260'  Clinical TMS \$400'  Regulatory TMS \$200'		
Marketing/PR \$1,500 Thousand			 Commercialization \$1,500'					

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