

Frequently Asked Questions

Q. WHAT SORT OF COMPANY IS MDX LIFE SCIENCES?

A. MDX is a new startup company established during October 2017 in the Boston area.

Q. WHAT IS THE MAIN GOAL OF MDX AND ITS MISSION?

A. MDX Life Sciences, Inc. is a Medical Device and Therapeutic Company Developing Technologies for Continuous Real-time Health-analysis through evaluation of Body Oxygen Balance Homeostasis.

Q. WHY IS IT IMPORTANT TO MONITOR PATIENTS IN REAL TIME?

A. Patients exposed to severe operations or treated in the ICUs are not stable and may suddenly deteriorate. Therefore, real time monitoring is needed in order to save their life.

Q. WHY THE CURRENT MONITORING TOOLS ARE NOT ENOUGH?

A. The current monitoring devices are providing information only on the respiratory and cardiovascular functions as well as the macro circulation activities.

Q. WHAT IS CURRENT MISSING INFORMATION IN PATIENTS MONITORING?

A. As of today the function of the microcirculation and the intracellular bioenergetics are not monitored parameters in patients.

Q. IS THE NEW TECHNOLOGY WILL REPLACE CURRENT TECHNOLOGY USED IN PATIENT MONITORING?

A. No. The new monitored parameters will add new information and dimension to the evaluation of the physiological status of the patients.

Q. WHAT IS THE BUSINESS OPPORTUNITY OF THE MDXViewer?

A.

- a) The MDXViewer - Unique, Unprecedented Technology and Product for early warning signals before clinical deterioration of patients.
- b) Clear Perceived Medical Needs.
- c) Huge Market Potential.
- d) Mature Project in an advanced phase (clinical use).

Q. WHAT IS THE FIRST PRODUCT DEVELOPED BY MDX?

A. MDX 1st device will provide a new concept in patient monitoring. The MDXViewer will present in real time the Tissue Metabolic Score (TMS) based on monitoring of 4 physiological parameters measured from the urethral wall.

Q. HOW IS THE MDXViewer IS CONNECTED TO THE URETHRAL WALL OF A PATIENT?

A. A unique 3-way Foley catheter is introduced to the bladder of the patient for urine collection. A bundle of optical fibers is embedded in the wall of the catheter and are in contact with the inside wall of the urethra.

Q. HOW THE PATIENT'S OTHER ORGANS CONNECTED TO THE MONITORING DEVICE?

A. The company will develop different types of fiber optic probes that will be connected to the specific monitored organ. The Foley catheter is one example of a probe to be used.

Q. WHAT IS SCIENTIFIC BACKGROUND OF THE DEVICE DEVELOPED BY THE COMPANY?

A. The concept named Tissue Metabolic Score- TMS is a product of long term academic research activities performed and published in more than 150 scientific papers since the early 1970th.

Q. WHAT IS THE REGULATORY STATUS OF THE DEVELOPED MEDICAL DEVICE?

A. MDX Life Sciences is capable to provide a FDA approved device that will monitor 4 physiological parameters from tissues of patients in real time. The TMS will need a special approval by the FDA.

Q. WHO IS THE INITIAL TYPE OF PATIENTS TO BE MONITORED BY THE MDXViewer?

A. Patients that are subjected to cardiovascular operations will be the 1st group in testing the efficacy of the MSXView in the OR and during the early postoperative period in the ICU.

Q. IS THE MDXViewer USEFUL TO MONITOR OTHER TYPE OF PATIENTS?

A. Yes. The aim is to apply the same technology to monitor newborns treated in the neonatal ICU. In the next step, the MDXViewer will be applied to adults treated in the various ICUs and ORs.

Q. IS THE MDXViewer IS AN INVASIVE MEDICAL DEVICE?

A. The use of Foley catheter in monitoring patients by the MDXViewer could be defined as a minimally invasive technique.

Q. HOW LONG COULD THE PATIENT BE MONITORED CONTINUOUSLY?

A. According to the previous testing of the Foley catheter it seems that the approved monitoring duration could be up to 4-5 days using the MDXViewer.

Q. IS THERE ANY DAMAGE CREATED, BY THE CATHETER, TO THE PATIENT DURING OR AFTER THE MONITORING?

A. Since the Foley catheters to be used in the patients are a standard one, there is no any expected damage to the monitored patients.

Q. COULD THE MDXViewer BE USED IN OTHER SCIENTIFIC APPLICATIONS?

A. Yes. The MDXViewer has a High potential use in animal research related to organ and tissue pathophysiology. The efficacy and safety of new developed drugs could be tested by the MDXViewer.

Q. WHAT IS THE BUSINESS MODEL OF THE COMPANY?

A. The main source of income will be from the single use disposable Foley catheter. The aim of MDX is to reduce the price of the MDXViewer to a low level or to provide it free when few hundred catheters is ordered.

Q. WHAT IS THE POTENTIAL ANNUAL MARKET SIZE FOR THE 1ST PRODUCT?

A. Assuming that the sale price of a disposable “smart” Foley catheter will cost \$100, an annual total sale of \$ 2 billion are expected.

Q. WHAT ARE THE PARAMETERS MEASURED BY THE MDXViewer?

A. Based on 4 physiological parameters measured via the Foley catheter, the MDXViewer is presenting a new concept named Tissue Metabolic Score- TMS representing the total body oxygen balance.

Q. WHAT IS THE STATUS OF THE DEVICE REGARDING ITS PATENTABILITY?

A. The new product (MDXViewer) is protected by a provisional patent application submitted in the USA during October 2017.

Q. WAS THE DEVICE TESTED IN PATIENTS UNTIL NOW?

A. Previous models of medical devices presenting tissue viability parameters were tested in a group of 50 patients in ORs and ICUs.

Q. WHAT IS THE UNIQUE PHYSIOLOGICAL PARAMETER MEASURED BY THE MDXViewer?

A. The main parameter representing cellular energy metabolism is mitochondrial function measured optically by the fluorescence of NADH related enzyme in real time.

Q. IS THERE ANY APPROVED MEDICAL DEVICES THAT MONITOR MITOCHONDRIAL NADH IN VIVO AVAILABLE IN THE MARKET?

A. No. MDX Life sciences is the only company that has the knowledge to provide clinically approved NADH monitoring device combined with the presentation of Tissue Metabolic Score.