



FOR IMMEDIATE RELEASE:

Mitrix Bio Publishes Details Of “Mitlets” - Newly Discovered Blood Transfusion Components Containing Donor Mitochondria

Palo Alto, CA - October 25, 2021 - Mitrix Bio today announced a preview paper discussing recently discovered blood components called "Mitlets," small vesicles containing mitochondria, ejected by platelets, which potentially could be transfused into patients to treat disease.

What are mitlets?

Human blood contains many different components that can be transfused – red blood cells, white blood cells, plasma, platelets, etc. Mitlets are another type of blood component. They are emitted by platelets. The average person has hundreds of billions of platelets. When activated by damage or by the end of their 10-day lifespan, platelets eject their contents, including mitochondria, encased in tiny capsules. Recent research shows these “mitlets” are absorbed by nearby cells, transferring their mitochondria to help strengthen the immune system and regenerate tissue.

When were they discovered?

Mitlets (originally called mitochondrial PEVs) were first discovered in 2014 by Mitrix partner researcher Dr. Eric Boilard and team at Université Laval in Quebec. Now Mitrix has completed research showing that mitlets can be extracted safely from the blood and injected in large quantities, with 10 or more donors concentrating mitlets to a recipient patient, or grown in a bioreactor.

What is their significance?

This is important because dysfunctional mitochondria have been identified as responsible for dozens of diseases, including blindness, neurodegenerative diseases, liver disease, and dangerous mitochondrial mutation diseases in children. Donation of mitochondria via mitlets might help these diseases. Mitlets may also play a significant role in determining the longevity of humans and other animal species.

"We think of mitlets as a form of concentrated healing power" said Tom Benson, CEO of Mitrix Bio, "perhaps a missing link in the picture of how our bodies regenerate. Platelets have long been known to provide healing factors that encourage cells to regenerate, but cells that are old or damaged might not have enough energy to complete the task. We believe that mitlets supply that missing energy by donating healthy mitochondria - like small power plants - to help ailing cells. We believe platelets normally provide both the mitlets and growth factors as a combined therapy to enable healing. Now that we understand that relationship, we might create therapies to potentially promoting faster healing in the elderly or immune-compromised."

Is mitlet therapy FDA-approved or available for use?

No. Mitlet therapy are a purely experimental concept with significant risks, not approved for human use, and will likely require many years of research and testing before scientists

understand it fully. There are no human trials underway at this time. The purpose of this announcement is information only.

Where do mitlets come from?

Mitlets are extracted from platelets. Platelets are collected routinely by hospitals and blood banks for emergency use, and if not used, must be discarded after a few days. It is possible that blood banks could extract and store the mitlets before discarding expired platelets – thus gaining additional medical value out of a resource that is otherwise thrown away.

What's next?

Mitrix Bio is working with multiple university partners to study mitlets for a variety of indications and is testing bioreactor technology to grow mitlets in larger volumes.

About Mitrix Bio Inc.

Mitrix Bio (www.mitrix.bio) is a Palo Alto, CA-based preclinical biotech startup developing mitochondrial transfusion therapeutics, founded by Tom Benson, former manager at Stanford Linear Accelerator National Lab, with advisors such as Dr. Michael Snyder, Chair of the Genetics Department at Stanford University and Dr. Ben Albensi, Chair of the Department of Pharmaceutical Sciences and Co-Director of the B.R.A.I.N. Center at Nova Southeastern University in Florida.

Preview paper link at:

<https://tinyurl.com/mitrixwhite1>

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