Investigation of Leela Quantum Bloc Technology and its Effects on Cell Recovery

Principal Investigator: Dr. Robert Sheaff, PhD., The University of Tulsa

Abstract

Quantum biology and the interactions thereof are concepts that currently occupy the very frontiers of science. Previously, scientists believed that quantum functions only had importance and application at a sub-atomic scale and were typically elicited under very closely controlled conditions. It was assumed that in order to elicit manageable quantum interactions, experimental temperatures needed to approach absolute zero in an attempt to eliminate fluctuations and other confounding variables. Within the past decade, it has become clear that not only is it possible for these quantum interactions to occur in a normal environment at room temperatures, but that it is happening all the time and nature has used it as one of the underpinnings of our entire existence.

We have posed the question of whether or not controlled quantum interactions would have a positive impact when applied consistently to a biological system. For the purpose of determining this, we have used the Leela Quantum Bloc Technology and tested it to see if it would alter the rate of wound healing via multiple double-blind experiments. These studies were performed in a biochemistry research laboratory at The University of Tulsa under the direction of the associate professor Dr. Robert Sheaff, Ph.D. They were structured to measure and quantitatively assess rates of cellular confluence achieved with and without the influence of a quantum field modulator (Leela Quantum Bloc Technology). The results show that there was a significant increase in the rate of healing across all experiments. There was a range of variability between all five of the experiments that were performed over a span of 12 months. The rates of wound healing were increased by 45.8% on the lower end and by 100% on the higher end of the data sets across the whole study which includes five experiments over the course of 12 months.

Research Questions

- What role does the Leela Quantum Bloc Technology play in biological processes such as wound healing?
- What are the potential impacts of consistent application of the Leela Quantum Bloc Technology interactions on biological systems such as wound healing?

The purpose of this study is to provide preliminary insights into the potential effects of controlled quantum interactions on wound healing rates in biological systems, aiming to lay the groundwork for further investigation into the mechanisms and applications of quantum biology.

Study Design

This study implemented a double-blind experimental design to investigate the potential effects of the Leela Quantum Bloc Technology on wound healing rates in biological systems. The research was conducted in a biochemistry research laboratory at The University of Tulsa under the supervision of Dr. Robert Sheaff, PhD.

Duration: 12 months (each experiment a few days until the treated cells were healed and recovered)
Frequency of Observation: Several times per day
Sample Size: Tens of millions of cells
Cell Type: Human Dermal Fibroblasts (HDF)
Treatment group: HDF cells exposed to the Leela Quantum Bloc Technology, which served as the intervention.
Control group: HDF cells not exposed to the Leela Quantum Bloc Technology, maintaining standard conditions.

Goal

Compare rates at which uncharged and charged Human Dermal Fibroblasts (HDF) cells close a scrape (i.e. wound) in a confluent monolayer of cells.

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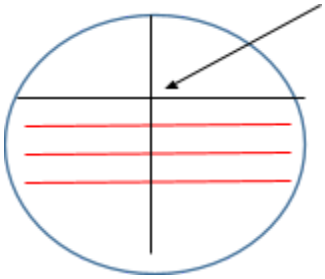
Protocol and Procedure

Date, Time	Details
11/27/23 6AM	Prepare 4 p60 plates: label plate bottom as shown before plating cells.  - Use a fine-tip sharpie in the indicated colors to mark the bottom outside of the p60. The arrow indicates where the top of the scrape will be initiated. The scrape will run down and bisect the three red lines, which are spaced in such a manner that while scanning down using the microscope deck controls it will be possible to see all three lines (not at once) without having to move the plate. The method is to start at the scrape initiation site, and scan down to the 1st red line. Now focus on the red line, not the cells to establish position. Then re-focus on the cells and take the picture. Do this for all three lines. - Removed HDF cells from 4 confluent p100 plates with PBS-EDTA. Pellet and re-suspend in 2ml DMEM+FBS.
11/30	Refeed with cell media solution
12/3	Refeed with cell media solution
12/4	2p refeed four confluent p60s with cell media solution
12/4 2:15PM	Checked for confluence. Were hi-confluent. Plates labeled 1-4. Scraped 1-4 in hood as described above using firm small micropipette tip (wiped down with EtOH). No re-feeding, scraped in their media. Four plates were then given to Ian who took pictures of two plates (which will be charged from a distance; i.e. quantitized) and two served as controls (uncharged; ie untreated). I did not know which were which.
12/4 2:30	P=time zero, 1st pictures X.1a & X.1b are taken. There were two initial photos taken. One of each of the 2 plates that was chosen to be quantized. These images were then anonymized and all discernable markers were digitally removed or occluded prior to being sent to the group who was initiating the Leela Quantum Bloc Technology protocol at 2:45PM. The photos of the 2 selected plates were not shared with the laboratory personnel. Next, the plates lates were returned to the microscopy area and the first photos were taken. The 1st picture (time zero) as described above; 1.1a, 1.1b, 1.1c are plate #1, 1st picture, at red lines a, b, and c (from the top). 20X magnification, 44% image size. After completion of the first

	set of photos, the plates are returned to 37C + CO2 incubator and separated from each other on the internal two shelves.
12/4 2:45PM	The pictures were quantized.
12/5 5AM	2nd picture X.2 Took pics as above; eg 1.2a, 1.2b, 1.2c, then returned plates to 37C+CO2 incubator in separate locations (random).
12/5 10AM	3rd picture X.3 Took pics as above; eg 1.3a, 1.3b, 1.3c, then returned plates to 37C+CO2 incubator in separate locations (random).
12/5 3PM	4th picture X.4 Took pics as above; eg 1.4a, 1.4b, 1.4c, then returned plates to 37C+CO2 incubator in separate locations (random).
12/5 8:30P	5th picture X.5 Took pics as above; eg 1.5a, 1.5b, 1.5c, then returned plates to 37C+CO2 incubator in separate locations (random).
12/6 5AM	6th picture X.6
12/6 10AM	7th picture X.7
12/6 3PM	8th picture X.8
12/7 5AM	9th picture X.9
12/7 10AM	10th picture X.10

Data acquisition

Phase contrast images were captured at 20X magnification on a Nikon Eclipse Ti inverted microscope and saved as JPEG files. All images were obtained under the same parameter settings on microscope/software variables such as brightness, magnification, image intensity, etc.

Data assembly

JPEG files were copied and pasted into a word document. Each image was re-sized to 1inch square and brightness adjusted to +45% to enhance viewability. Three images were captured for each scrape on each plate, and these three images were assembled side-by-side with respect to increasing time after the scrape. In the figure below, time (hrs) indicates the time the image was captured after the scrape. 1-4 indicates the plate number, and ABC indicates the position on the plate where the image was taken. Thus, to follow “wound healing” of the scrape, one should scan the time series for A,B and C individually. Together they represent an average of time to closure for that particular scrape.

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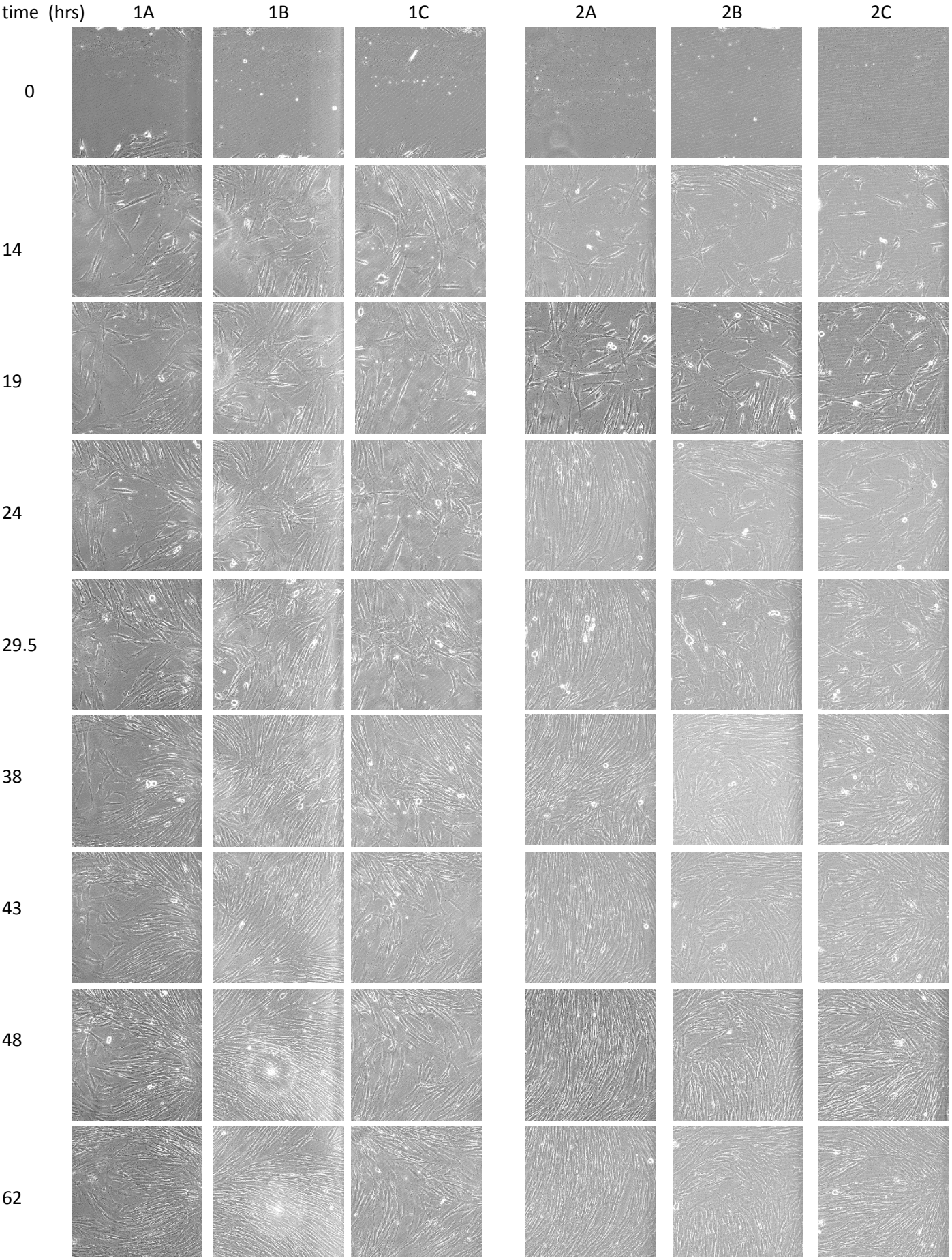

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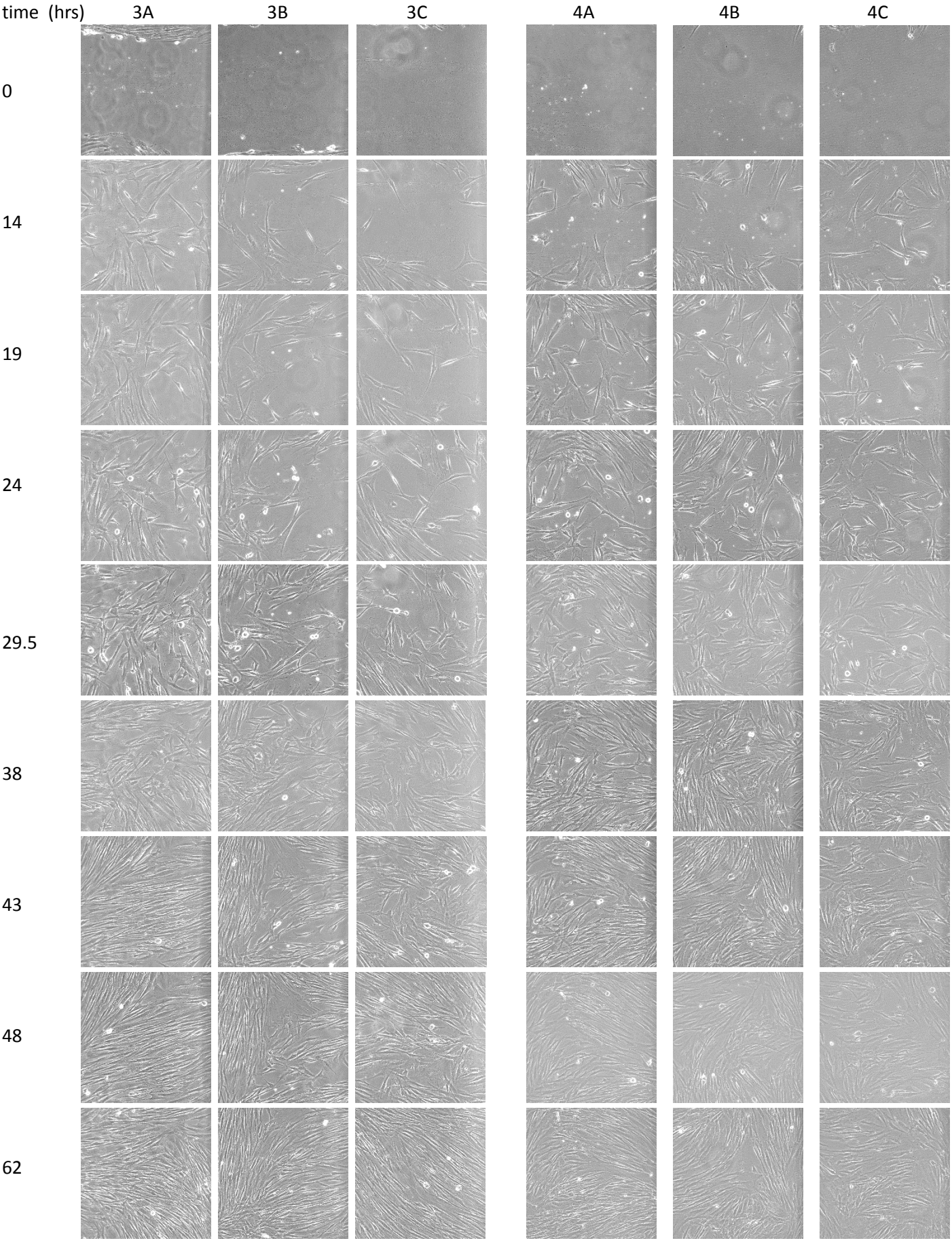

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Data Analysis

Time zero shows the scrape immediately after it was made. Good clearance of all cells from the scrape site, and edges of the scrape can just barely be observed in some images. The beginning of scrape closure is observed at the first time point 14hrs after the scrape, as indicated by the migration of cells into the scrape site. While there is clearly some variability across the three images and only a qualitative assessment can be made, at this point plate #1 appears to be closing the fastest. At 19hrs the trend seems to continue, but by 24hrs plate 2 seems to be more densely packed with cells in the scrape site, followed by plate #1, then #4, and finally #3. This order appears to be repeated at 29.5 hrs. In terms of time to complete closure for all three sites (ABC), plate #2 accomplishes this the fastest, as indicated by the 38hr time point. Interestingly, plate #4 appears to close next by 48hrs. In contrast, Plate 1 and 3 clearly still have open spaces in at least two of the images (see plate # 1, 48hrs, A and C; and plate #3, 48hrs, B and C).

Summary of Findings

This study aimed to investigate the potential impact of controlled quantum interactions, facilitated by the Leela Quantum Bloc Technology on wound healing rates in biological systems. Over a span of 12 months, multiple double-blind experiments were conducted in a biochemistry research laboratory at The University of Tulsa under the supervision of Dr. Robert Sheaff, PhD. The results revealed a significant increase in the rate of wound healing across all experiments. The rates of wound healing varied, with an approximate increase of 50% at the lower end and up to 100% at the higher end of the data sets. To be more concrete, the first two experiments showed a wound-healing acceleration of 85-100%, the last experiment showed an acceleration of wound-healing of 45.8% to 79.2%. Analysis of the experimental data showed clear evidence of wound closure progression over time, with noticeable differences observed among the plates and experimental conditions. Specifically, plate #2 exhibited the fastest closure of wounds in that specific experiment, followed by plate #4. Plates #1 and #3 showed slower rates of closure, with open spaces still visible at later time points. These findings suggest that controlled quantum interactions facilitated by the Leela Quantum Bloc Technology have a positive impact on wound healing rates in biological systems. However, further research is warranted to reveal the underlying mechanisms and optimize the application of quantum biology principles in biomedical contexts. The study contributes to the emerging field of quantum biology by providing preliminary insights into the potential effects of quantum interactions on biological processes, paving the way for future investigations into the applications of quantum technology in healthcare and biomedicine.

“The phenomenon of quantum entanglement - in which the state of one particle of an entangled pair is reliant on the state of the other particle, no matter how far apart - is well established in physics1[1]. More recently, evidence has emerged that biological systems also experience entanglement [2] [3]. It was exciting to help develop an experimental system for investigating the potential application of biological entanglement for therapeutic purposes. Results were interesting and warrant further study.”

- Dr. Robert J. Sheaff, PhD
Associate Professor, The University of Tulsa

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[1] Hensen, B.; et al. (21 October 2015). "Loophole-free Bell inequality violation using electron spins separated by 1.3 kilometres". Nature. 526 (7575): 682–686. arXiv:1508.05949. Bibcode:2015Natur.526..682H. doi:10.1038/nature15759. hdl:2117/79298. PMID 26503041. S2CID 205246446. See also free online access version.

[2] Marletto, C.; Coles, D. M.; Farrow, T.; Vedral, V. (2018). "Entanglement between living bacteria and quantized light witnessed by Rabi splitting". Journal of Physics Communications. 2 (10): 101001. arXiv:1702.08075. Bibcode:2018JPhCo...2j1001M. doi:10.1088/2399-6528/aae224. S2CID 119236759.

[3] O'Callaghan, Jonathan (29 October 2018). ""Schrödinger's Bacterium" Could Be a Quantum Biology Milestone – A recent experiment may have placed living organisms in a state of quantum entanglement". Scientific American. Retrieved 29 October 2018.

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