REVBIO
TRANSFORMING BONE REPAIR™

TETRANITE BACK TO SPACE... This Time to Regenerate!

REVBIO'S MISSION IN SPACE

At RevBio, we have one mission: to transform bone repair for both patients and clinicians. For us to make this goal a reality, we are dedicated to conducting research and experimentation to show that our product, TETRANITE, is safe and effective for a range of body applications.

We are thrilled to announce our highly anticipated rodent experiment to be conducted on the International Space Station (ISS). The launch, that took place on November 26th, was a success.

The objective of this study is to compare the ability and rate of new bone regeneration in critical-sized defects surgically create in the cranial bone of mice and repaired with the optimized TETRANITE formulation.

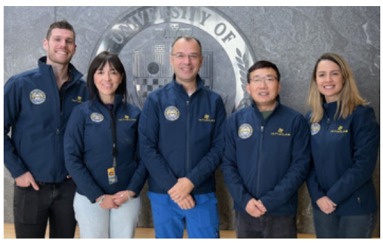
PREPARE FOR TAKE OFF...

The surgeries were conducted on Earth and the mice recovered for two days. Immediately thereafter, they launched to the ISS where the experiment will then compare bone regeneration in these defects treated with TETRANITE in comparison to both positive and negative control groups. The experiment has an Earth-based, or ground-control parallel matching group, so that results from space can be translated back to earth.

The experiment in space is impressive because the harsh conditions of microgravity in space immediately slows bone growth effectively simulating the effects of osteoporosis. The results from this experiment will provide evidence and motivation for treating this large and important patient population that could benefit from the TETRANITE, a regenerative bone adhesive biomaterial.

"Our adhesive could help not only strengthen the bones by repairing fractures, but it can also help regenerate bone that's very low quality or deficient in volume", says CEO Brian Hess.

MEET THE TEAM



The RevBio Team has been collaborating with Dr. Guiseppe Intini and his research team at the University of Pittsburgh's Intini Lab to prepare for the highly anticipated rodent experiment.

INTINILAB

In the months leading up to the mission,, both teams worked together and conducted several preliminary experiments to optimize and select the TETRANITE formulation for this penultimate experiment

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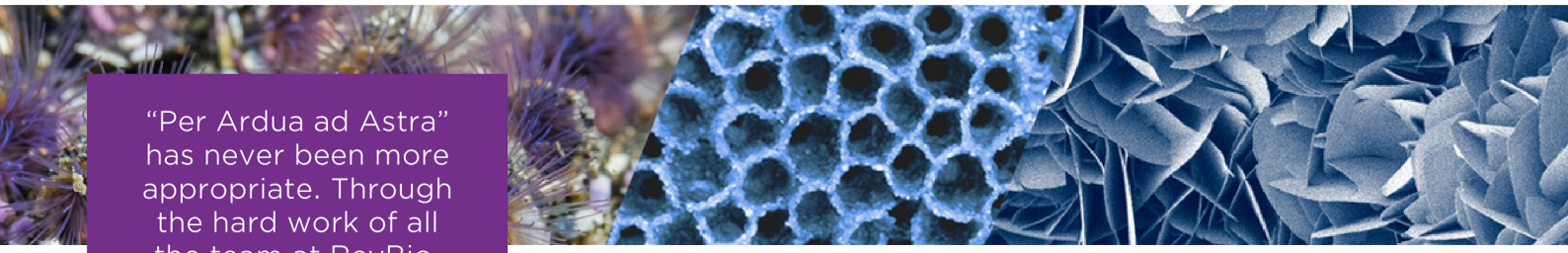
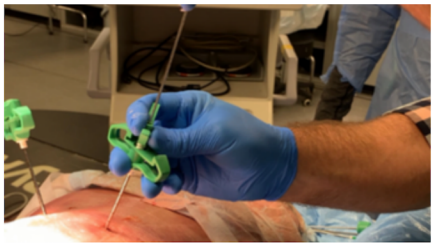


"Per Ardua ad Astra" has never been more appropriate. Through the hard work of all the team at RevBio, we not only reach for the stars but we bring the ground-breaking Tetranite technology to patients, as we embark on a second phase in-human clinical trial at my clinic in London, U.K. to assess the... Tetranite that will be used on mice being sent to the ISS. We will reach the stars after all!", says Michael Norton, PhD.

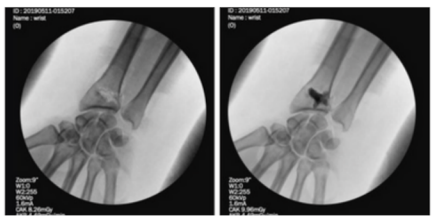
RECENT GRANTS

These recent grants have allowed RevBio to continue important research to end medicines 50 year search for a bone glue



RevBio was awarded a Phase I grant for Vertebral Compression Fractures from the National Institute on Aging. This grant-funded project will assess the safety and efficacy of simulated vertebral compression fractures treated with TETRANITE in comparison to PMMA (polymethylmethacrylate) through testing conducted in human cadavers as well as a pilot sheep study to evaluate healing.

Grant number: 1R43AG079741-01A1.



RevBio was also awarded a Phase II Small Business Innovation Research (SBIR) grant expected to total $2 million over two years from the National Institute on Aging, part of the National Institutes of Health. This funding will allow us to pursue the treatment of wrist fractures with our patented bone adhesive technology.

Grant number: 2R44AG060881-02.

EXPERIMENTS LEADING UP TO THE LAUNCH

During preliminary experiments, RevBio was able to show through cell culture experiments that the optimized formulation of TETRANITE (TN-ISM) stimulated the rRNA gene expression of human pre-osteoblast "bone forming" cells. This included a greater than 10x increase in the expression of bone morphogenetic protein 2 (BMP-2), which is a protein known to stimulate the production of bone. This exciting cell culture work was further translated to animal experiments, where this optimized formulation showed a remarkable increase in the rate of new bone formation (See Figure 1). The results from this preliminary research was later presented at the International Space Station Research and Development Conference (ISSR&D) held in Washington, DC. Here, RevBio's Chief Science Officer, Dr. George Kay, presented to a diverse audience that took special notice to the results and highly anticipated experiment to be conducted on the ISS

"This information will be helpful for the development of effective bone regeneration strategies in various clinical situations, from cranio-facial surgery to dental surgery and orthopedic surgery", says Guiseppe Intini, DDS, PhD

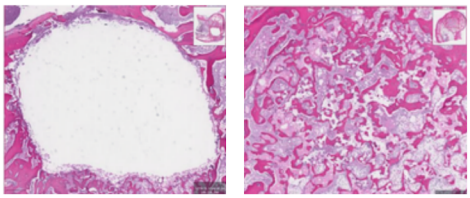


Figure 1: Evidence of bone regeneration occurring throughout a critical-sized bone defect in the distal femur of rabbits that was filled with the original (TN-SM) and optimized formulation of Tetranite (TN-ISM) at 8 weeks post implantation. The results show the remarkable increase in new bone formulation through the more porous, bioactive biomaterial. This material is being investigated in the proposed mouse cranial experiment launching to the ISS on the SpX-26/RR-25 mission.

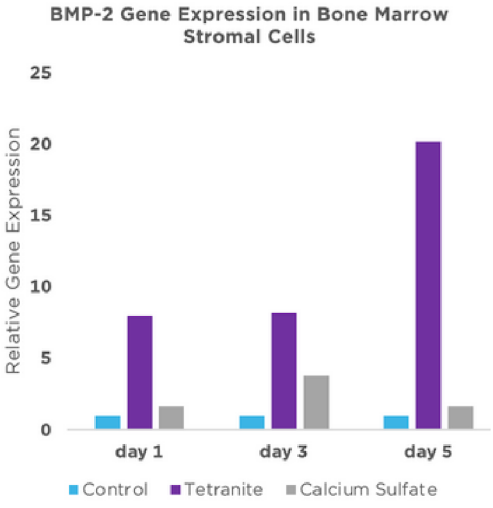


Figure 2: Note that control is cell culture medium. Credit to Intini lab and the University of Pittsburg for this data plot.