

# ACQUISITION OPPORTUNITY: DENTAVATIONS, INC.

## ***The Future of Dentistry: Quiet, Virtually Painless, Precision Cavity Prep***

**Executive Summary** The purpose of this document is to introduce the **WaterJet** technology and present the business case for the acquisition of its Intellectual Property (IP). Dentavations, Inc. offers a disruptive opportunity for dental product OEMs and IP commercialization funds to own the next standard in restorative dentistry.

Unlike traditional abrasive drills, air abrasion, or hard tissue lasers, the WaterJet is a revolutionary handpiece that uses a fluid stream for cavity preparation. It is whisper-quiet, substantially faster, and eliminates the need for patient pain mitigation. The long-promised code of fluid-based cutting has finally been solved—and it is ready to disrupt the global dental handpiece market.

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## **THE TECHNOLOGY: The WaterJet**

Water jet cutting is the standard for precision in the industrial world, specifically for materials where heat and vibration—side effects of grinding—damage the substrate. Dentavations has successfully adapted this technology for safe, effective use in dentistry.



**How It Works** Our proprietary abrasive fluid stream reduces pressure to levels that safely remove enamel and dentin at a rate comparable to current burs, without the risks of soft tissue damage.

- **Safety:** The design offers greater depth control than existing technologies. Crucially, the system offers an unparalleled safety window; unlike a bur or laser, the WaterJet does not damage soft tissue upon accidental contact.

- **Longevity:** Heat and vibration from traditional drills cause micro-cracks where bacteria hide, leading to recurrent decay. The WaterJet is a "cold cutting" process, eliminating the heat-affected zone and micro-fractures.
- **Finish:** The stream creates a matte/etched finish, eliminating a procedural step and providing the perfect surface for longer-lasting composite or CAD/CAM restorations.

**Development Status** Dentavations is the sole owner of the core IP, originally developed at Brigham Young University.

- **Engineering:** working pre-production system that has been demonstrated to over 50 dentists
- **Validation with a top-five global dental manufacturer and a leading educational institution to complete:**
  - **Heat Study:** No measurable heat from use of the WaterJet
  - **Removal rates:** Removes tooth at a comparable rate to current burr technology
  - **Bonding:** Leaves a matte finish and doesn't leave a smear layer
- **Pre-Submission meeting with the FDA to verify a 510(k) process**
- **Patents**
  - Granted: US 7326054, Appl. No. 13/938385, Appl. No. PCT/US14/46019. Patents issued in China, USA, Europe, Korea, Australia, and India
  - Additional patents in drafting.

## VALUE PROPOSITION

We have validated the following technical advantages and patient benefits through our partnership with Dr. Smith (retired Dean) at the Midwestern University School of Dentistry.

### For the Patient

- **Pain-Free Experience:** Potential to perform most procedures without anesthesia (shots)
- **Reduced Anxiety:** "Super Quiet" operation—the unit cannot be heard over standard suction. No drill whine, no vibration, and no heat.
- **Better Outcomes:** Minimally invasive conservation of healthy tooth structure and reduced post-op sensitivity

### For the Clinician

- **Superior Efficiency:** Faster and more versatile than air abrasion or lasers, without the mess, large footprint, complexity, or cost of laser units.
- **Enhanced Capability:** Effective white spot removal (Ortho), efficient Zirconia removal, and rounded interior prep angles for better restoration success.
- **Implantology:** Safely detoxifies Peri-implantitis with no heat zone.
- **Practice integration:** Wireless foot pedal, easy desktop/cart installation, ergonomically comparable handpiece

### For the Acquirer

- **Recurring Revenue:** The system utilizes a patented abrasive mixture, ensuring a long-tail consumable revenue stream.

- **Market Disrupting Technology:** Addresses the root cause of restoration failure (drill damage) rather than just treating symptoms, positioning the owner as the leader in "The Future of Dentistry."

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## MARKET OPPORTUNITY

The global dental handpiece market represents a multi-billion-dollar industry dominated by antiquated technology. The current standard—the pneumatic or electric drill—has reached its innovation ceiling.

The WaterJet is positioned to capture a projected **30% market share** by displacing not only standard high-speed handpieces but also niche air abrasion and laser units.

- **Target Market:** General Dentists, and Pediatric Dentists (high value for needle and noise-free procedures),
- **Adoption Drivers:** Patient demand for pain-free dentistry and clinician demand for recurring revenue and efficient workflow.

*(Note: We invite interested parties to review our revenue proforma, which forecasts adoption rates and revenue projections based on a 30% capture of the addressable market as supported by other emerging technologies)*

## NEXT STEPS

Dentavations is undertaking a competitive bid process to transfer its IP and technology to a firm capable of manufacturing and distributing this breakthrough technology globally.

We invite qualified OEMs and funds to schedule an in-person meeting and live demonstration of the WaterJet system.

## ADDITIONAL RESOURCES

To see The WaterJet in action and review our technical validation, please access the following:

- **Video Introduction:** <https://youtu.be/kysrmElJybY>
- **Website:** <http://dentavations.com>
- **Clinical Validation Data:** [Heat Study Document](#)
- **Cutting Demonstration:** <https://youtu.be/zEQUUw6N-DM>