Maine Technology Asset Fund Project Summary

AWARDEE: **FHC, INC, BOWDOIN**

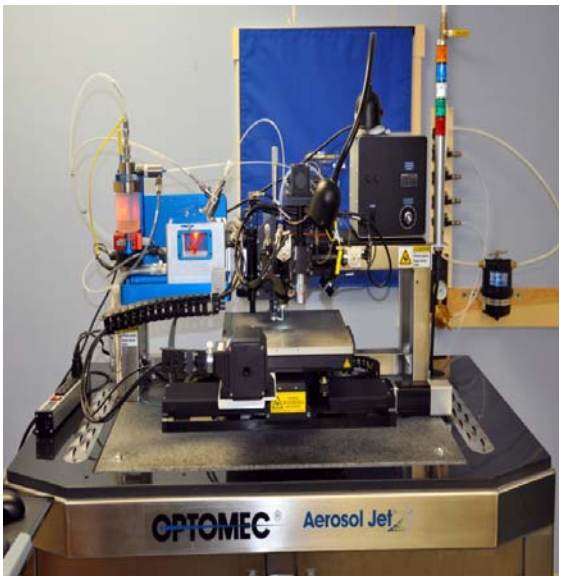
MTAF PROJECT TITLE: Development of Micro-fabrication Facility for Neurosurgical Devices

AWARD AMOUNT: $433,077 **MATCH:** $766,231

PROJECT DIRECTOR: Lee Margolin, Director of Research and Compliance

COLLABORATORS: University of Maine LASST Lab, Orono

FHC



"The Aerosol Jet offers us the ability to develop future products that we could never have thought of producing before. We can lay down traces as small as 8 microns [0.008 millimeters]. That means we can put many more recording elements on the same amount of space as we do now. It's a game-changer for us."

Engineering technician Alex Lorenzo

For more information:
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PROJECT SUMMARY:

FHC is in the commercialization phase of research and development efforts of several state-of-the-art neurosurgical and neuroscientific research devices. Fabrication of these devices required a micro-fabrication capability that did not exist at FHC prior to the MTAF award, and were necessary in order to manufacture these devices to medical standards and in production quantity. To that end, the MTAF award has underwritten the acquisition of the required equipment, the installation of that equipment into our manufacturing facility, and the training of personnel on the proper use of the equipment. Specifically, the MTAF funds were used to acquire three major pieces of equipment, two of which have now been acquired, the LaserStar welder and the HAAS micro-machining workstation. This advanced equipment reduces production costs as well as opens market opportunities for customized products for this growing medical devices company. The three pieces of equipment are:

1.) a LaserStar laser welder which is capable of joining small tubing and wire without the need of glue,

2.) a HAAS model OM-2A high speed micro-machining workstation

3.) an Optomec aerosol jet capable of depositing submillimeter wide traces of nano-sized particles of metals.

FHC has also identified three operators for training (including one new hire) and collaborated with the University of Maine's LASST lab on aspects of the work. The installation and use of this specialized micro-fabrication facility with trained staff has enabled FHC to provide needed solutions to neuroscientists and neurosurgeons in a highly competitive global market. Further, FHC and its collaboration partners can now develop ever more novel and useful tools and devices for use in the neurosciences and neurosurgery.