

**EXPERIMENTAL LICENSE PROGRESS REPORT
OF THE ALFRED MANN FOUNDATION
November 16, 2010**

As required under the experimental license renewal granted on November 16, 2009 (Call Sign WD2XLW; File No. 0228-EX-RR-2009), the Alfred Mann Foundation for Scientific Research (“AMF”) submits this semi-annual progress report on the experimental operations of the medical micropower network (“MMN”) system. AMF continues to make progress with its innovative system. AMF has implemented and continues to implement improvements that will enhance the radio communication performance and reliability of the MMN devices.

Specifically, AMF has completed construction of eight version 3 Master Control Units (“MCUs”). Version 3 hardware and firmware extensions provide a compact user interface to replace the laptop PC development and subject fitting interface.

The spectral excision algorithm is operating, and improvements are ongoing to ensure acceptable strong signal handling, adequate protection against harmful interference from incumbent land mobile radio and radar systems, and proper channel selection. Two environment simulators are currently being used to test all aspects of the signal processing. One simulator recreates captured signals from on-air recordings, and the other creates uncommon strong-signal environments. The system is managing both types of conditions successfully.

Additionally, AMF has implanted two devices in an animal subject and, under clinical conditions, has successfully employed spectral excision processing and all the system elements, including the surgical tools and Version 3 MCU. AMF has

successfully completed magnetic resonance imaging and X-ray compatibility testing of the implants.

AMF continues to improve the implant assembly process. The soldering process has replaced the adhesive attachment of internal components and has improved the manufacturing yield.

AMF also continues to consider research proposals and research teams to perform the first human study.

Table 1 below describes the four channels implemented in the experimental hardware.

Table 1 – Radio Channel Frequencies (MHz)

	Lower Edge	Center	Upper Edge
Band 1	413.919	416.405	418.891
Band 2	426.349	428.835	431.321
Band 3	438.779	441.265	443.751
Band 4	451.209	453.695	456.181
Guard bands 7.458 MHz		Band Width 4.972 MHz	