

**EXPERIMENTAL LICENSE PROGRESS REPORT OF
THE ALFRED MANN FOUNDATION
May 16, 2012**

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 operation 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, including the following:

1. Based on link reliability issues identified in the previously reported animal study,¹ AMF has conducted a comprehensive indoor multipath analysis of the MMN system, resulting in certain system improvements. For example, improvements in the master control unit (“MCU”) timing recovery processing have been simulated and are being implemented. Additionally, the channel assessment and monitoring functions have been improved to provide more accurate measurements of link differences across the channels due to frequency selective fading.
2. New antennas designed to improve the link performance under cross-polarized conditions have been tested and are being integrated into the MCU for use in the next series of trials. Additional antenna testing and development for the next version of the MCU are ongoing.
3. AMF is preparing a revision of the MCU hardware to reduce power consumption and minimize minor performance differences among the channels.

¹ See Experimental License Progress Report of AMF, File No. 0228-EX-RR-2009, at 1 (Nov. 16, 2010).

**EXPERIMENTAL LICENSE PROGRESS REPORT OF
THE ALFRED MANN FOUNDATION
May 16, 2012**

Table 1 below specifies the four channels implemented in the MMN 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	