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**DATE**

September 9, 2013

**TO**

UNEP Global Mercury Partnership

**Re**

Lumencor Light Engines for Mercury Free Microscopy (MFM)

Dear Head of Branch:

Lumencor, Inc. is a commercial, United States based lighting and optical design manufacturer. Lumencor's products are illuminators that produce powerful, visible spectrum, solid state light for scientific equipment. By all performance metrics common to the industry, these lighting products are a superior alternative to the mercury arc lamp industry standard. Moreover, Lumencor light engines are mercury(Hg)-free, CE certified and both RoHS and REACH compliant.

Biomedical research scientists have used the properties of mercury-generated light for decades in all of the most common types of scientific equipment, perhaps most notably, fluorescence microscopes. This scientific-grade bulb uses 1,200 times more Hg per minute than household CFLs making it vastly more hazardous and a key target for elimination. Many institutions have Hg-free policies but mercury-based, scientific-grade lighting is exempt: based on historical usage it is considered "essential in health care facilities." Lumencor's solid-state light engines are a novel, clean technology that not only elevates the quality of the data lamp-based instruments produce, but obviates the dangerous, mercury dependence of these laboratories.

Lumencor has developed an awareness program called Mercury Free Microscopy (MFM) in collaboration with several high profile microcopy core facilities. MFM is designed to

- inform institutions about their Hg levels from lighting in labs and clinics,
- educate about compliant Hg disposal procedures and
- identify stakeholders to help defray the costs of converting to Hg-free lighting.

Independent studies have established the scientific merits of these state-of-the-art light engines over current Hg-based lamps. MFM has fostered studies that establish a 13-month return on investment when switching to light engines from lamps, justifying the initial investment. Furthermore, light engines dramatically lower both the lamp users' energy consumption and carbon footprint. The MFM program helps to bring together and make aware technology-conscious and clean-tech conscientious microscope users. The program significantly reduces expenses related to scientific grade lighting. It eliminates a significant laboratory and human health and safety hazard. Finally, it opens a gateway for additional sustainable discussions with respect to clean, high-performance, high-tech tools for research and clinical laboratories.

Lumencor would like to join the UNEP Global Mercury Partnership. We build products, programs and consensus around the elimination of mercury in technical-grade lighting. In so doing, Lumencor reduces a significant source of mercury vapor and mercury containing-metal halide bulbs used in scientific equipment. In order to facilitate the partnership, Lumencor has initiated the Mercury Free Microscopy Program for institutional elimination of inefficient mercury vapor lamps. MFM's target is the advanced biomedical and clinical research market place, whose membership has a large professional influence on policy in their scientific and geographic communities. As a Partner, Lumencor can help bring the message of the UNEP Global Mercury Partnership to this sophisticated audience.

Sincerely,

Regan Baird, Ph.D.  
Sustainability Program Director  
Americas Sales Manager  
Lumencor, Inc.