



**Contact:** Bill Holber, Ph.D.  
**Location:** Woburn, MA  
**Email:** [bholber@energetiq.com](mailto:bholber@energetiq.com)  
**Tel:** +1 781 939 0763  
**Website:** <http://www.energetiq.com>



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
 National Institutes of Health



National Institutes of Health Commercialization Assistance Program  
 (NIH-CAP)

## Company Profile

**Industry Sector:** Biological Imaging and Analysis

**Company Overview:** Energetiq is a developer and manufacturer of short wavelength light source products that are used to image, analyze and fabricate nano-scale structures. The company's products cover the wavelength range from soft x-ray, through deep ultraviolet, into the visible and near infrared (1-1000nm). Energetiq leverages its experience in making advanced products for the fabrication of leading edge semiconductor devices in the life sciences sector.

**Target Market(s):** Biologists and biochemists

## Key Value Drivers

**Technology:** Electrodeless Soft X-Ray Light Source to enable a Soft X-Ray Water-Window Microscope for Small Laboratories\*  
 Laser-Driven DUV-Vis Light Source for high throughput Circular Dichroism Spectroscopy

**Competitive Advantage:** Synchrotron light sources at the national laboratories provide a valuable source of short wavelength photons for imaging and spectroscopy applications, but they are available only to a few users and at high cost. Energetiq has developed two new technologies which offer the possibility of approaching the performance of a synchrotron but in compact, lower cost, lab-scale units.

For Soft X-Ray Microscopy, Energetiq's Electrodeless Z-Pinch plasma source produces sufficient soft x-ray flux to make whole hydrated cell images with resolution <30nm in ~1minute, with minimal sample preparation.

For Circular Dichroism Spectroscopy, Energetiq's LDLS technology produces deep UV flux comparable to a synchrotron, but in a lab-scale package.

**Plan & Strategy:** Seeking strategic partners

\*Technology funded by the NCRR and being commercialized under the NIH-CAP

## Management

### Leadership:

Paul Blackborow: CEO  
 Bill Holber, PhD: VP Advanced Technology  
 Matt Besen: VP Engineering  
 Debbie Gustafson: VP Sales and Support

### Scientific Advisors:

Prof. David Attwood: Center for X-Ray Optics, Lawrence Berkeley National Lab and UC Berkeley  
 Bruce McEwen, PhD: NYS Wadsworth Laboratory and University of Albany

## Product Pipeline

