

## Photonics and Life Sciences Division

# Leveraging existing technologies

Over the years, EXFO has developed and acquired a number of telecom-related technologies that we are leveraging in selected photonics and life science applications for high-tech industrial manufacturing and research markets. For example, we offer several light-based curing solutions for optical component manufacturing and have optimized our approach for other industries, such as semiconductor, electronic, and medical device manufacturing, to maximize revenues. Our Novacure® and Acticure® spot-curing systems deliver precise doses of the appropriate spectral light onto photosensitive adhesives to significantly reduce bonding time and increase repeatability. These light-based curing systems, supported by patented StepCure® technology, produce a high-quality bonding solution that is unmatched in the industry.

### Developing unique fluorescence microscopy solutions

In 2003, we took advantage of our light-based curing technology to jointly develop a unique fluorescence microscopy solution with leading manufacturers. The X-Cite™ 120 Fluorescence Illumination System is an indispensable microscope accessory, offering greater image quality, convenience and lamp life than conventional solutions in the life sciences market. Market response proved to be very positive following the signing of reseller agreements with industry leaders such as Nikon Instruments and Zeiss MicroImaging, who are offering the X-Cite 120 through their own sales channels to new and existing microscope owners.

### Deploying nanotechnology for life science research

To meet the growing demand for precision positioning instrumentation in life science research, we have drawn on our telecom expertise in nanometer-scale positioning to offer a unique array of piezoelectric-based positioning systems. The stability of piezoelectric (PZT) technology provides extremely smooth and predictable instrument motion used for applications as varied as micromanipulation and patch-clamp experimentation, ultra-fast solution switching, nuclear transfer and intracytoplasmic sperm injection.

### Extending our Wavemeter® technology

Our Wavemeter test solutions are recognized around the world for characterizing optical networks with the highest degree of accuracy. We take full advantage of our leading-edge technology by extending it to non-telecom applications that require the use of a laser. Scientists and engineers, after all, need to know the absolute wavelength of a laser for their particular line of work such as high-resolution laser spectroscopy, photochemistry and optical remote sensing.

As demonstrated in the above examples, we're constantly finding new ways to leverage our technology base and maximize revenues.



PCS-5000  
Patch-Clamp Manipulation System



WA-1650  
Wavemeter



X-Cite™ 120  
Fluorescence Illumination System

