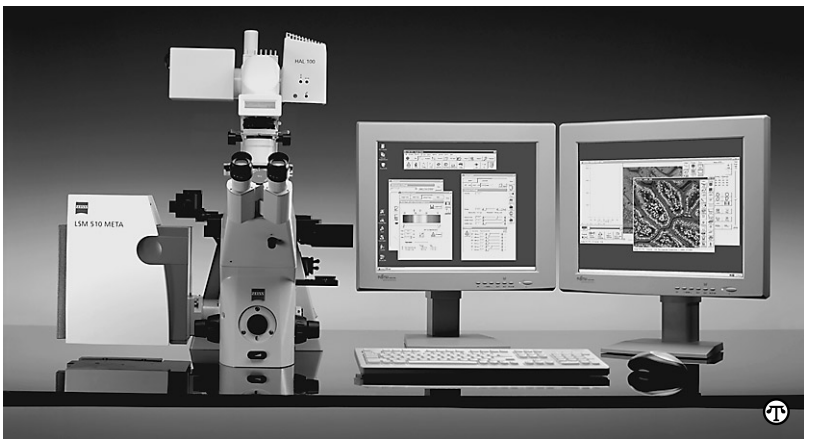
TECHNOLOGY IN OUR LIVES

New Laser Microscope Opens Doors



A new kind of microscope is giving scientists greater capabilities in terms of analyzing living cell material.

(NAPSA)—The microscope is one of science's oldest tools. Dutch scientists are credited with inventing the first glass lens microscopes in the late 16th century. However, it was the Germans—Carl Zeiss, Ernst Abbe and Otto Schott—who put microscope production into high gear in the 1880s.

These scientists discovered the physical laws governing lens design, established an assembly line of precision machinists and optical craftsmen, and formulated new types of glass for making high-magnification, distortion-free lenses.

Today, microscopy means much more than "brass and glass" instruments. Modern microscopes combine high magnification with powerful lasers, computers and software to produce highly sophisticated tools for penetrating living cells and analyzing molecular interactions. These new instruments are called confocal laser scanning microscopes—and the latest confocal microscope, the Zeiss LSM 510 META, has biomedical researchers excited about this technique.

Highly-specific fluorescent probes are used to react with different molecular structures within the cells. The LSM 510 META can separate and analyze more fluorescent reactions than ever before. This instrument produces stunning 3-D, multi-color images of subcellular reactions in living cells—a great advance compared to working with dried, dead cells as in previous methods.

For the scientific community, this microscope is opening new worlds of discovery in cancer research, neuroscience and basic cell biology. To learn more, visit