

Quantum Dots for Biological Applications: Sensitive, multicolor applications in biochemistry, cell biology, and live animal studies.

Presented by:
Patricia Whaley, Ph. D.
Quantum Dot
Invitrogen Corporation

Qdot[®] Conjugates are enabling customers to visualize biological systems in real time with incredible brightness, clarity, and photostability. Studies on single biological molecules can be carried out with sensitivities and on timescales previously inaccessible to fluorescence techniques, yielding new information about the dynamics and interactions of these molecules within cellular environments. The unique optical properties of these materials offers users a revolution in fluorescence applications in biology and was named one of the top 10 Scientific Breakthroughs of 2003 by Science Magazine. Qdot[®] Conjugates are gaining increased prevalence as an important fluorophore in a variety of high-impact biological applications.

The unique spectral properties of Qdot[®] nanocrystals allow simultaneous single-wavelength excitation and simplified filter-based multiplexed detection at levels of sensitivity previously attained only with enzymatic amplification. Their photo- and chemical stability allows repeated analysis of samples for periods from many months to years. The application of commercially available Qdot[®] Conjugates to a variety of biological problems, including single-molecule tracking in live cells over long periods of time, protein trafficking in live cells, live animal imaging, and sensitive, multicolor biomarker detection in cells and tissues will be presented, along with examples of other applications of the Qdot[®] Conjugate technology including western blotting, high-content screening, and high-throughput assays.

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Room 124 Taylor Hall
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For more information, please contact your local Invitrogen Account Manager
ROGER THUOTTE, at (800) 955-6288 extension 66531
or email at roger.thuotte@invitrogen.com

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