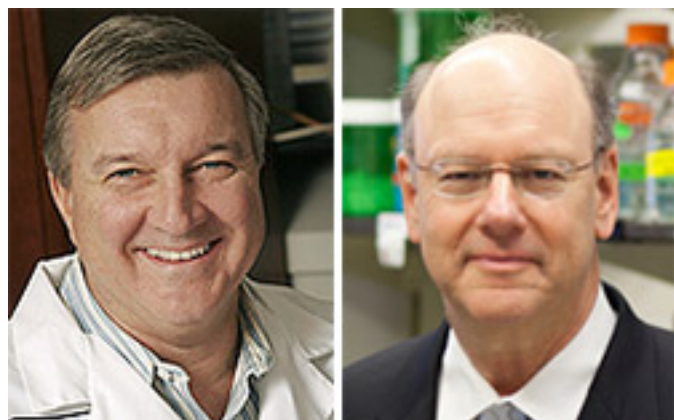


Einstein Researchers Present on Imaging Advances at AAAS Annual Meeting

Einstein

February 5, 2013 — (BRONX, NY) — New microscope technologies provide images of unparalleled detail, allowing scientists to view individual cells – and even single molecules within the cells – moving in real time. These advances pave the way for better understanding of and treatment for diseases in humans, including cancer.



John Condeelis, Ph.D. (left), Robert Singer, Ph.D. (right) Two leaders in advanced imaging, [John Condeelis, Ph.D.](#) [1], and [Robert Singer, Ph.D.](#) [2], of [Albert Einstein College of Medicine](#) [3] of Yeshiva University, will describe their research during two symposia at the American Association for the Advancement of Science (AAAS) Annual Meeting in Boston being held from February 14 through February 18. Drs. Condeelis and Singer are co-directors of the [Gruss Lipper Biophotonics Center](#) [4] and co-chairs of [anatomy and structural biology](#) [5] at Einstein.

Dr. Singer will discuss his work on imaging messenger RNA (mRNA) molecules in the ["New Frontiers in Single Molecule Detection and Single Cell Analysis"](#) [6] symposium scheduled for Saturday, February 16 at 8:30 a.m. His research has led to new tools and techniques that track single mRNA molecules in real time in living cells. Such exact images help scientists better understand the key processes involved in regulating cell division, which could provide insight into the out-of-control cell division that characterizes cancer. Dr. Singer is also professor of [cell biology](#) [7] and of [neuroscience](#) [8].

Dr. Condeelis, will present his research on imaging breast cancer tumor cells at the ["Innovations in Imaging"](#) [9] symposium scheduled for Saturday, February 16 at 1:30 p.m. Using technology that captures high-resolution, three-dimensional moving images to observe the tumor microenvironment (where tumor cells interact with surrounding cells). Dr. Condeelis found that breast cancer spreads only when a specific trio of cell types are present together. His findings are leading to new biomarkers that can help predict metastatic risk for individual patients. Dr. Condeelis holds the Judith and Burton P. Resnick Chair in Translational Research at Einstein and also directs the program in [tumor microenvironment](#) [10] at the [Albert](#)

[Einstein Cancer Center](#) [11].

A special news briefing on imaging advancements featuring Drs. Condeelis and Singer will be held on February 15 at 2:00 p.m.

As co-directors of Einstein's [Gruss Lipper Biophotonics Center](#) [4], Dr. Singer and Dr. Condeelis lead the development of new microscopy technologies, including software and instrumentation, to aid in diagnosing and treating human diseases and in understanding fundamental cellular processes. Their technology is used at institutions worldwide. Drs. Singer and Condeelis also run a program that bridges single-cell imaging with other imaging technologies, such as magnetic resonance imaging (MRI) at the College of Medicine's [Gruss Magnetic Resonance Research Center](#) [12] to show how diseases begin and progress within the body.

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<http://www.biosciencetechnology.com/news/2013/02/einstein-researchers-present-imaging-advances-aaas-annual-meeting>

Links:

[1] <http://www.einstein.yu.edu/faculty/6712/john-condeelis/>

[2] <http://www.einstein.yu.edu/faculty/7137/robert-singer/>

[3] <http://www.einstein.yu.edu/>

[4] http://www.einstein.yu.edu/biophotonics/page.aspx?id=13754&ekmensenl=15074e5e_1934_4109_btnlink

[5] <http://www.einstein.yu.edu/departments/anatomy-structural-biology/>

[6] <http://aaas.confex.com/aaas/2013/webprogram/Session5817.html>

[7] <http://www.einstein.yu.edu/departments/cell-biology/>

[8] <http://www.einstein.yu.edu/departments/neuroscience/>

[9] <http://aaas.confex.com/aaas/2013/webprogram/Session5913.html>

[10] <http://www.einstein.yu.edu/centers/cancer/research/tumor.aspx>

[11] <http://www.einstein.yu.edu/centers/cancer/>

[12] <http://www.einstein.yu.edu/centers/gruss-magnetic-resonance-research/>