

Curriculum Vitae Kinneret Keren

Date of birth: 5th September 1972

Place of birth: Jerusalem, Israel

Marital status: Married+3

Nationality: Israeli

Current Position

Assistant Professor (from 3/2008)

Physics Department, Technion- Israel Institute of Technology, Haifa, Israel

Education

Postdoctoral fellow (11/2003- 2/2008)

Stanford University Medical School, Department of Biochemistry, Stanford, CA

Advisor: Prof. Julie Theriot

Ph.D. in Physics (1998- 2003)

Technion- Israel Institute of Technology, Department of Physics, Haifa, Israel

Advisors: Prof. Erez Braun and Prof. Uri Sivan

Thesis title: Self-Assembly of Molecular-Scale Electronics by Genetic Recombination

M.Sc. in Physics (1996-1998)

Feinberg Graduate School- Weizmann Institute of Science, Faculty of Physics,

Department of Condensed Matter Physics

Rehovot, Israel

Advisor: Prof. Ady Stern

Thesis title: Electron-Electron Lifetime in Atoms and in Quantum-Dots

B.Sc. in Physics and Mathematics, Summa cum Laude (1993-1996)

The Hebrew University in Jerusalem

Jerusalem, Israel

Awards

European Biophysical Societies' Association (EBSA) Young Investigator Award, 2011.

Krill Prize for Excellence in Scientific Research from The Wolf Foundation, 2010.

Allon Fellowships for Outstanding Young Researchers, The Israel Council for Higher Education, 2008.

Damon Runyon Cancer Fund Postdoctoral Fellowship 1/2005-12/2007.

Named one of the 100 top young innovators in science and technology in the world (TR100) by MIT's Technology Review magazine 2004.

Rothschild Postdoctoral Fellowship 2003.

Charles Clore Graduate Scholarship Award for Academic Excellence 2000.

Weizmann Institute Graduate School Excellence Prize 1998.

Publications

Inbar Seroussi, Danny Veikherman, Noa Ofer and [Kinneret Keren](#), Segmentation and tracking of live cells in phase-contrast images using directional gradient vector flow for snakes, *Journal of Microscopy* (in press 2012).

Noa Ofer, Alex Mogilner and [Kinneret Keren](#), An actin 'disassembly clock' determines shape and speed of lamellipodial fragments, *PNAS* **108 (51)**, 20394-99 (2011).

[Kinneret Keren](#), Membrane tension leads the way, Commentary in *PNAS* **108 (35)** 14379-80 (2011)

[Kinneret Keren](#), Cell motility: The integrating role of the plasma membrane. Invited review in *European Biophysical Journal* **40(9)**, 1013-1027 (2011).

Erin L. Barnhart, Kun-Chun Lee, [Kinneret Keren](#), Alex Mogilner, and Julie A. Theriot, An adhesion-dependent switch between mechanisms that determine motile cell shape, *PLOS Biology* **9(5)**, e1001059 (2011).

Cyrus A. Wilson, Mark A. Tsuchida, Greg M. Allen, Erin L. Barnhart, Kathryn T. Applegate, Patricia T. Yam, Lin Ji, [Kinneret Keren](#), Gaudenz Danuser and Julie A. Theriot, Myosin II contributes to cell-scale actin network treadmilling via network disassembly, *Nature* **465 (7296)**:373-7 (2010).

Alex Mogilner and [Kinneret Keren](#), The shape of motile cells. Invited review in *Current Biology* **19**, R762–R771 (2009).

[Kinneret Keren](#), Patricia T. Yam, Anika Kinkhabwala, Alex Mogilner and Julie A. Theriot, Intracellular fluid flow in rapidly moving cells, *Nature Cell Biology*, **11**, 1219 - 1224 (2009).

[Kinneret Keren*](#), Zach Pincus*, Greg M. Allen, Erin L. Barnhart, Gerard Marriott, Alex Mogilner and Julie A. Theriot, Mechanism of shape determination in motile cells, *Nature* **453 (7194)**:475-80 (2008).

[Kinneret Keren](#), Julie A. Theriot, Biophysical aspects of actin-based motility in fish epithelial keratocytes, an invited chapter in "Cell Motility", Editor: Peter Lenz, Springer (2007).

Ilya Baskin, Stav Zaitsev, Doron Lipson, Rachel Gilad, [Kinneret Keren](#), Gidi Ben-Yoseph, and Uri Sivan, Molecular shift register and its utilization as an autonomous DNA synthesizer, *Phys. Rev. Lett.* **97**, 208103 (2006).

Aretha Fiebig, [Kinneret Keren](#), Julie A. Theriot, Fine-scale, time-lapse analysis of the biphasic, dynamic behavior of the two *Vibrio cholerae* chromosomes, *Molecular Microbiology* **60(5)**, 1164-78 (2006).

Galia Blum, Stefanie R. Mullins, [Kinneret Keren](#), Marko Fonovic, Christopher Jedszko, Mark J. Rice, Bonnie F. Sloane and Matthew Bogyo, Dynamic imaging of protease activity with fluorescently quenched activity-based probes, *Nature Chemical Biology* **1**, 203-209 (2005).

[Kinneret Keren](#), Uri Sivan and Erez Braun, DNA-templated electronics ,an invited

chapter in "Bioelectronics: from theory to applications", Editors: Itamar Wilner, Eugenil Katz, Wiley (2005).

Erez Braun and Kinneret Keren, From DNA to transistors, Review in *Advances in Physics* **53(4)**, 441-496 (2004)

Kinneret Keren, Rotem S. Berman and Erez Braun, Patterned DNA metallization by sequence-specific localization of a reducing agent, *Nano Letters* **2(4)** 323-326 (2004).

Kinneret Keren and Erez Braun, Sequence- specific molecular lithography-towards DNA-templated electronics, Review in *Chemical Engineering and Technology* **27(4)** 1-6 (2004).

Kinneret Keren, Rotem S. Berman, Evgeny Buchstab, Uri Sivan and Erez Braun, DNA-templated carbon-nanotube field-effect transistor, *Science* **302**, 1380-1382 (2003).

Kinneret Keren, Michael Krueger, Rachel Gilad, Gdalyahu Ben-Yoseph, Uri Sivan and Erez Braun ,Sequence-specific molecular lithography on single DNA molecules, *Science* **297**, 72-75 (2002).

Kinneret Keren, Yoav Soen, Gidi Ben-Yoseph, Rachel Yechieli, Erez Braun, Uri Sivan and Yeshayahu Talmon, Microscopics of complexation between long DNA molecules and positively charged colloids, *Phys. Rev. Lett.* **89(8)**, 088103(4) (2002).

Kinneret Keren, Ady Stern & Uri Sivan, The different effect of electron-electron interaction on the spectrum of atoms and quantum dots, *Eur. Phys. J. B* **18**, 311-318 (2000).