

Peng Yin

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Appointments

- Assistant (2010-14)/Associate (14-16)/Full (16-) Professor of Systems Biology, Harvard Medical School
- Core Faculty Member (2010-), Wyss Institute for Biologically Inspired Engineering, Harvard University

Training & education

- Postdoctoral (2005-07)/Senior Postdoctoral (2007-09) Scholar in Computer Science & Bioengineering, Caltech
- Ph.D. in Computer Science, Duke Univ., 2005
- M.S. in Molecular Cancer Biology, Duke Univ., 2000
- B.S. in Biochemistry and Molecular Biology, Peking Univ., 1998
- B.S. in Economics, Peking Univ., 1998

Selected awards

- Rozenberg Tulip Award in DNA Computing, 2017
- World Economic Forum Young Scientist Award, 2014, 2015
- Inaugural ACS Synthetic Biology Young Scientist Award, 2014
- DARPA Young Faculty Award (YFA), 2011
- ONR Young Investigator Program (YIP) Award, 2011
- NSF Faculty Early Career Development (CAREER) Award, 2011
- NIH Director's New Innovator Award, 2010

Selected recent publications

- J. Kishi, T. Schaus, N. Gopalkrishnan, F. Xuan, P. Yin*. *Programmable autonomous synthesis of single-stranded DNA*. **Nature Chemistry**, 10:155-164, 2018
- D. Han, X. Qi, C.A. Myhrvold, B. Wang, M. Dai, S. Jiang, M. Bates, Y. Liu, B. An*, F. Zhang*, H. Yan*, P. Yin*, *Single-stranded DNA and RNA origami*, **Science**, 358:eao2648, 2017
- L. L. Ong, N. Hanikel, O. K. Yaghi, C. Grun, M. T. Strauss, P. Bron, J. Lai-Kee-Him, F. Schueder, B. Wang, P. Wang, J. Y. Kishi, C.A. Myhrvold, A. Zhu, R. Jungmann, G. Bellot*, Y. Ke*, P. Yin*. *Programmable self-assembly of three-dimensional nanostructures from 10⁴ unique components*. **Nature**, 552:72-76, 2017
- A. A. Green, J. Kim, D. Ma, P. A. Silver, J. J. Collins, P. Yin*. *Complex cellular logic computation using ribocomputing devices*. **Nature**, 548:117-121, 2017
- T. E. Schaus, S. Woo, F. Xuan, X. Chen, P. Yin*. *A DNA nanoscope via auto-cycling proximity recording*, **Nature Communications**, 8:696, 2017
- M. Dai, R. Jungmann, P. Yin*, *Optical imaging of individual biomolecules in densely packed clusters*. **Nature Nanotechnology**, 11:798-807, 2016.
- R. Jungmann, M.S. Avendano, M. Dai, J.B. Woehrstein, S.S. Agasti, Z. Feiger, A. Rodal, P. Yin*, *Quantitative super-resolution imaging with qPAINT using transient binding analysis*. **Nature Methods**, 13:439-442, 2016.
- W. Sun, E. Boulais, Y. Hakobyan, W. Wang, A.X. Guan, M. Bathe*, P. Yin*, *Casting inorganic structures with DNA molds*. **Science**, 346:1258361, 2014.
- A. Green, P. Silver, J. Collins and P. Yin*. *Toehold switches enable wide dynamic range and highly orthogonal regulation of gene expression*. **Cell**, 159:940-954, 2014.
- R. Iinuma[†], Y. Ke[†], R. Jungmann[†], T. Schlichthaerle, J.B. Woehrstein, and P. Yin*, *Polyhedra Self-Assembled from DNA Tripods and Characterized by 3D DNA-PAINT*. **Science**, 344:65-69, 2014.
- R. Jungmann, M.S. Avendano, J.B. Woehrstein, M. Dai, W.M. Shih, P. Yin*. *Multiplexed 3D cellular super-resolution imaging with DNA-PAINT and Exchange-PAINT*. **Nature Methods**, 11:313-318, 2014.
- Y. Ke, L. Ong, W. Shih, and P. Yin*, *Three-Dimensional Structures Self-Assembled from DNA Bricks*. **Science**, 338:1177-1183, 2012.
- B. Wei, M. Dai, and P. Yin*. *Complex Shapes Self-Assembled from Single-Stranded DNA Tiles*, **Nature**, 485:623-626, 2012.
- D.Y. Zhang*, S.X. Chen, and P. Yin*. *Optimizing Nucleic Acids Hybridization Specificity*. **Nature Chemistry**, 4:208-214, 2012.

Translation

- Co-Founder, Director, **Ultivue, Inc.** (<http://ultivue.com>), 2015-;
- Co-Founder, Director, **NuProbe Global** (<http://nuprobe.com>), 2016-

Misc

- See media coverage of our work at <http://molecular.systems/media.html>