The editorial scope tightrope

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Points of Significance: Comparing samples—part II
Martin Krzywinski & Naomi Altman

A fair comparison
Paul I Costea, Georg Zeller, Shinichi Sunagawa & Peer Bork

Single-cell in situ RNA profiling by sequential hybridization
Eric Lubeck, Ahmet F Coskun, Timur Zhiyentayev, Mubhij Ahmad & Long Cai

MutationTaster2: mutation prediction for the deep-sequencing age
Jana Marie Schwarz, David N Cooper, Markus Schuelke & Dominik Seelow

CRISPR snapshots of a gene-editing tool
Making protein crystals fly
FISHing for faster findings
Scoring all human mutations
METHODS IN BRIEF
TOOLS IN BRIEF
Single cells make the tissue
Interspecies systems biology (a.k.a. interspecies genetics)

Cancer genomes: discerning drivers from passengers
Vivien Marx

Next-gen immunohistochemistry
David L Rimm
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Sleep-spindle detection: crowdsourcing and evaluating performance of experts, non-experts and automated methods
Simon C Warby, Sabrina L Wendt, Peter Welinder, Emil G S Munk, Oscar Carrillo, Helge B D Sorensen, Poul Jennm, Paul E Peppard, Pietro Perona & Emmanuel Mignot

A synthetic luciferin improves bioluminescence imaging in live mice
Melanie S Evans, Joanna P Chaurette, Spencer T Adams Jr, Gadarla R Reddy, Miranda A Paley, Neil Aronin, Jennifer A Prescher & Stephen C Miller

PyClone: statistical inference of clonal population structure in cancer
Andrew Roth, Jaswinder Khattria, Damian Yap, Adrian Wan, Emma Laks, Justina Biele, Gavin Ha, Samuel Aparicio, Alexandre Bouchard-Côté & Sohrab P Shah

Efficient genome modification by CRISPR-Cas9 nickase with minimal off-target effects
Bin Shen, Wensheng Zhang, Jun Zhang, Jiankui Zhou, Jianying Wang, Li Chen, Lu Wang, Alex Hodgkins, Vivek Iyer, Xingxu Huang & William C Skarnes

A mass spectrometry–based hybrid method for structural modeling of protein complexes
Argyris Politis, Florian Stengel, Zoe Hall, Helena Hernández, Alexander Leitner, Thomas Walzhoeni, Carol V Robinson & Ruedi Aebersold

Efficient multivariate linear mixed model algorithms for genome-wide association studies
Xiang Zhou & Matthew Stephens

Live-cell imaging of alkyne-tagged small biomolecules by stimulated Raman scattering
Lu Wei, Fanghao Hu, Yihui Shen, Zhixing Chen, Yong Yu, Chih-Chun Lin, Meng C Wang & Wei Min

Structure determination of noncanonical RNA motifs guided by 1H NMR chemical shifts
Parin Sripakdeevong, Mirko Cevec, Andrew T Chang, Michèle C Erat, Melanie Ziegeler, Qin Zhao, George E Fox, Xiaoluan Gao, Scott D Kennedy, Ryszard Kierzek, Edward P Nikonowicz, Harald Schwalbe, Roland K O Sigel, Douglas H Turner & Rhiiju Das

Highly multiplexed imaging of tumor tissues with subcellular resolution by mass cytometry
Charlotte Giesen, Hao A O Wang, Denis Schapiro, Nevena Zivanovic, Andrea Jacobs, Bodo Hattendorf, Peter J Schiffer, Daniel Grolimund, Joachim M Buhmann, Simone Brandt, Zsuzsanna Varga, Peter J Wild, Detlef Günther & Bernd Bodenmiller

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Cry o-scanning transmission electron tomography of vitrified cells
Sharon Grayer Wolf, Lothar Houben & Michael Elbaum

Broad specificity profiling of TALENs results in engineered nucleases with improved DNA-cleavage specificity
John P Guilinger, Vikram Puttanayak, Deepak Reyon, Shengdar Q Tsai, Jeffry D Sander, J Keith Joung & David R Liu

Identification of small molecules that support human leukemia stem cell activity ex vivo
Caroline Pabst, Jana Krosl, Iman Fares, Geneviève Boucher, Réjean Ruel, Anne Marinier, Sébastien Lemieux, Josée Hébert & Guy Sauvageau

Dynamic characterization of growth and gene expression using high-throughput automated flow cytometry
Ignacio A Zaleta, Andrés Aranda-Díaz, Hao Li & Hana El-Samad

Characterizing bacterial gene circuit dynamics with optically programmed gene expression signals
Evan J Olson, Lucas A Hartsough, Brian P Landry, Raghav Shroff & Jeffrey J Tabor

Gold rotor bead tracking for high-speed measurements of DNA twist, torque and extension
Paul Lebel, Aakash Basu, Florian C Oberstrass, Elsa M Tretter & Zev Bryant