Quantitative flow cytometric measurement of protein phosphorylation has been developed into a high-throughput drug screening platform that can be used throughout the drug discovery process. Using phosphoflow cytometry, Krutzik et al. (p 132) studied the effects of compounds from a natural product library on cytokine-induced phosphorylation of multiple proteins in the Jak-Stat signaling pathway in subpopulations of primary immune cells. Shown are several Tetris-inspired (http://www.tetris.com) game pieces depicting library compounds, flow cytometric histograms and scatter plots, dose-response curves, and the structure of the Stat1 protein, together forming a heatmap representation of the screening data and revealing pathway- and cell type-specific inhibitors. Cover art by Erin Boyle based on images provided by Peter O. Krutzik and Garry P. Nolan.
BRIEF COMMUNICATIONS

107  Cu(I) recognition via cation-π and methionine interactions in CusF
Yi Xue, Anna V Davis, Gurusamy Balakrishnan, Jay P Stasser, Benjamin M Staehlin, Pamela Focia, Thomas G Spiro, James E Penner-Hahn & Thomas V O’Halloran
► see also p 85

Site selectivity of platinum anticancer therapeutics
Bin Wu, Peter Dröge & Curt A Davey

ARTICLES

113  Glyoxylate carboligase lacks the canonical active site glutamate of thiamine-dependent enzymes
Alexander Kaplun, Elad Binshtein, Maria Vyazmensky, Andrea Steinmetz, Ze’ev Barak, David M Chipman, Kai Tittmann & Boaz Shaanan
119 A forward chemical genetic screen reveals an inhibitor of the Mre11–Rad50–Nbs1 complex
Aude Dupré, Louise Boyer-Chatenet, Rose M Sattler, Ami P Modi, Ji-Hoon Lee, Matthew L Nicolette, Levy Kopelovich, Maria Jasin, Richard Baer, Tanya T Paull & Jean Gautier → see also p 86

126 Conformational cross-talk between α2A-adrenergic and μ-opioid receptors controls cell signaling
Jean-Pierre Vilardaga, Viacheslav O Nikolaev, Kristina Lorenz, Sébastien Ferrandon, Zhenjie Zhuang & Martin J Lohse

132 High-content single-cell drug screening with phosphospecific flow cytometry
Peter O Krutzik, Janelle M Crane, Matthew R Clutter & Garry P Nolan

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