

## THE DISTILLERY

## This week in techniques

| Approach   | Summary  | Licensing status  | Publication and contact<br>information  |
|--|--|---|---|
| Assays & screens                                   |  |   |   |
| Mass spectrometry<br>(MS)-based enzymatic<br>assay | The Nimzyme MS-based assay could offer a high-sensitivity and high-<br>throughput alternative to conventional MS for measuring multiple<br>enzymatic activities in cell lysates and other complex biological<br>mixtures. The assay could also potentially be used to screen inhibitor<br>libraries. The method consists of immobilizing tagged molecules<br>from biological samples or libraries via noncovalent binding to a solid<br>fluorous-phase surface. Following analyte adsorption, the surface is<br>washed to remove other cellular materials. Laser irradiation then frees<br>any bound analytes for subsequent MS. In proof-of-concept studies, the<br>assay detected<br>$\beta$ -galactosidase activity in crude <i>Escherichia coli</i> cell lysates and in<br>thermophilic microbial community lysates. Researchers said that<br>next steps include adapting the assay to a printed microarray before<br>commercialization. | U.S. patent<br>application filed<br>covering the<br>Nanostructure-<br>initiator<br>MS (NIMS)<br>technology;<br>available for<br>licensing | Northern, T. <i>et al. Proc. Natl. Acad.</i><br><i>Sci. USA</i> ; published online March<br>2, 2008;<br>doi:10.1073/pnas.0712332105<br><b>Contact:</b> Gary Siuzdak, The Skaggs<br>Institute for Chemical Biology, The<br>Scripps Research Institute, La Jolla,<br>Calif.<br>e-mail:<br>siuzdak@scripps.edu<br><b>Contact:</b> Chi-Huey Wong, same<br>affiliation as above<br>e-mail:<br>wong@scripps.edu |