

Orally presented at the conference: "Compatible & Integrated Systems for Improved Biological Screening
Optimizing cell-based assays through compatible platforms, data management and assay integration"
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The potential and promise of label-free technologies for more accurate readings in any biologically based screen

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The trend towards specific therapies for smaller patient groups increases the demand for predictable, patient-derived screening models. Label-free, live cellbased assays are a cost-effective alternative to biochemical assays and fluorescent cell-based screening. High-speed, miniaturised label-free applications for cell counting, clonality, colony size plus compound screening assays for cytotoxicity, cell growth and differentiation will be shown for the cell lines CHO, HEK-293, 3T3, HeLa, hybridoma, U937 and for donor- and patientderived cells. Similar examples with live, small animals include LD50 assays and animal behaviour assays. A preview will be given of how label-free technology supports full automation of bioproduction processes in the bio-therapeutics, tissue-banking, (stem-)cell therapy and tumour vaccination industries, as well as in biomedical microsystems and nanotechnology.