High-throughput flow-cytometric multiplexed yeast assays for discovery, pathway analysis, and chemical screening.

*** Access to the NIH Small Molecule Repository (300K small molecules) HTS capabilities. UNMCM is actively seeking collaborations and assay providers for new chemical screens against defined biological targets as part of the NIH Roadmap Initiative.***

Chris Allen¹, Bruce Edwards¹, Susan Young¹, Peter Simons¹, Mark Carter¹, Anna Waller¹, Kelly Trujillo⁶, MaryAnn Osley⁶, Ray Joe², Mabel Padilla², Phillip Tapia², Sushmita Roy³, Maggie Werner-Washburne², Claudio De Virgilio⁷, Hong Cai⁷, Larry Sklar¹. ¹) Cytometry and Cancer Center, U. New Mexico School of Medicine; ²) Biology Department, U. New Mexico; ³) Computer Science Department, U. New Mexico, Albuquerque, NM 87131; ⁴) National Flow Cytometry Resource, Los Alamos, NM 87545; ⁵) Dept. of Pathology, ⁶) Dept. of Molecular Genetics and Microbiology, U. New Mexico School of Medicine, Albuquerque, NM 87131, ⁷) Department of Medicine, Department of Biochemistry, University of Fribourg, Fribourg, Switzerland

University of New Mexico Center for Molecular Discovery Yeast Consortium Members (partial list)

Richard Kolodner – UCSD
Patrick Sung – Yale
Patty Kane – SUNY-Syracuse
Karlett Parra – University of New Mexico
Claudio De Virgilio – University of Fribourg, Switzerland
Maggie Werner-Washburne - University of New Mexico
MaryAnn Osley – University of New Mexico
Jac Nickoloff – Colorado State University
Richard Cannon – University of Otago, New Zealand
Yeast Resource Center – University of Washington

Technology - High Throughput Flow Cytometry: Sklar/Edwards

- 384 well plate/10-12 minutes
- 1-2 ul/ Sample
- Multiplex capabilities brings potential of 9 samples per well without loss of throughput
- Currently screening thirty 384-well plates per day as a 6-plex (69,120 samples per day)
- Developing 1,536 well plates per day as a 6-plex (69,120 samples per day)

Application - High Throughput Screening of the Yeast GFP Collection: Werner-Washburne/Sklar

- Samples from 96-well plates were diluted in triplicate into buffer with liquid handling robots and sampled using HyperCyt
- 24 plates sampled per day – 12 exponentially-growing plates and 12 stationary phase plates
- Black arrows - Protein with higher expression in SP culture
- Grey arrows - Protein with higher expression in exponentially-growing culture

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