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**Participants:**
- **Neil Kubica, Ph.D.**
  Harvard Medical School, Boston, MA
- **Peter T. Nelson, M.D./Ph.D.**
  University of Kentucky, Lexington, KY
- **Kai Wang, Ph.D.**
  Institute for Systems Biology, Seattle, WA

**Viewers of the webinar will:**
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Large Incubator
The CB 53 Incubator offers a 1.9-cubic-foot capacity in a compact footprint to reduce operating costs and conserve space. Hot-air chamber sterilization at 180°C makes it particularly well suited for applications in cell and tissue culture, as well as for in vitro fertilization laboratories. The Permadry condensation-free, double-pan humidification system maintains dry interior walls while the incubator operates at a relative humidity of more than 95 percent. The water level can be visually inspected, and changing the water or refilling the water pan is easy. A mixture of carbon dioxide and air is injected into the inner chamber through a cross-flow mixing valve. The mixture is distributed homogeneously because the inner chamber is under slight vacuum, which generates a Venturi effect. The need for an internal fan, which creates turbulence and complicates cleaning, is eliminated.

Toxicity Reporter Assay Panel
ToxReporter is a new panel of engineered cell lines and assays that can screen compounds for toxicity early in the drug discovery process. The ToxReporter panel detects a variety of cellular responses linked to toxic stresses, including oxidative stress and antioxidant response, inflammatory response, cell cycle control, DNA damage and apoptosis, hypoxia and angiogenesis, and stress responses. The assays are flexible; researchers can test multiple compounds or multiple cell lines using a single enzyme-linked immunosorbent assay. The assays are quantitative and can be performed at multiple time points.

Liquid Chromatography System
The Flexar liquid chromatography platform incorporates a new ergonomic industrial design and delivers a wide range of pressure options to address the increasingly demanding application needs of high-pressure liquid chromatography laboratories. This multitiered platform offers solutions from semiprep to ultrahigh-pressure liquid chromatography (UHPLC). It is controlled by the new Chromera Chromatography Data System, which was built from the ground up to offer an easy approach to instrument control and chromatographic data processing. The FX-15 UHPLC system features small particle–size columns (less than 2 μm) to offer new possibilities for resolution and separations, as well as fast analysis time. The system can reduce mobile phase solvent consumption by as much as 15-fold. The Chromera software allows users to easily control instruments, rapidly visualize data, and efficiently communicate results.

Co-Culturing Technology
Integrated Discrete Multiple Organ Co-Culture (IdMOC) is a patented technology allowing coculture of multiple cell lines in the same culture dish as physically separated but interconnected cultures, modeling human or animals in vivo with multiple organs connected by the systemic circulation. IdMOC makes use of a “wells-in-a-well” concept, with multiple small wells inside a larger containing well. The cells are physically discrete cultures in the inner wells, with interconnection achieved by an overlying medium in the containing well, covering the inner wells. The system can be used to evaluate drug distribution, multiple organ metabolism, and toxicity, as well as other applications.

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10 Ways to Improve Your Chances of Securing Research Funding

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