



## WE OFFER

**Toxicity Testing Services** utilizing functional *in vitro* and *in vivo* primary cell-based assays.

**Typical Applications** include:

- Assessment of Myelosuppression by Kinase Inhibitors
- Assessment of Neutropenia by Chemotherapeutic Agents
- Assessment of Immunotoxicity by Anti-viral Compounds
- Assessment of Bone Marrow Toxicity by Pesticides
- Assessment of Radiation damage/sparing on the Bone Marrow Microenvironment

## PLUS

**Services for assessment of:**

- Immunomodulation (cytokine and chemokine activity)
- Transplantation Engraftment Kinetics (dose & time in mouse models)
- Stem Cell Frequency (NOD/SCID mouse model)
- Hematopoietic Recovery following Chemotherapeutics (5-FU animal model)
- Clinical Trial sample evaluation (cell phenotype profiles and progenitor content of patient blood samples)

## NEW!

### Primary Cell Products\*

ReachBio now offers:

- Pure Murine ES-Derived Cardiomyocytes for the following applications:
  - cardiotoxicity testing (including hypertrophy responses)
  - electrophysiology studies
  - drug discovery and R&D
- Pre-Qualified Human Bone Marrow Mononuclear Cells
- Pre-Qualified Human Mesenchymal Cells
- Pre-Qualified Human Disease-Specific Cells

\* For *in vitro* research use only. Not for therapeutic use or injection into humans for any purpose.

## New toxicity testing approaches for a new era in drug development

Increasing knowledge of the underlying mechanisms that contribute to various diseases is providing the basis for exciting new and powerful targeted therapies. For example, a number of specific **tyrosine kinase inhibitors** have recently become the first-line treatment for certain patient groups (e.g. CML, myelofibrosis, etc.). These successful new therapeutics have shown remarkably high response rates and have spurred intense interest in the development of novel compounds with similar activities. However, like many other types of compounds, **myelosuppression** has been found to be a problematic side effect of this class of drug candidates.

**Myelotoxicity** occurs when a compound inhibits the normal proliferation of bone marrow-derived blood cell progenitors. This results in the reduction or total depletion of the various differentiated progeny of these primitive cells, including white blood cells, red blood cells and platelets. In order to ensure that drug candidates do not have any such unanticipated deleterious effects on the rapidly dividing and sensitive progenitor cell populations, regulatory authorities (e.g. FDA) are increasingly requiring that **predictive cell-based assays** be performed to assess potential myelotoxic effects.

ReachBio specializes in performing functional assays utilizing **primary cells from normal human bone marrow** for assessing the effects of compounds on hematopoietic stem cells and progenitors. In our hands, these *in vitro* colony forming cell (CFC) assays are **robust and highly sensitive**, making them ideally suited for the prediction of myelosuppression, neutropenia, immunotoxicity and other types of compound-related bone marrow toxicities. Our knowledgeable and experienced scientific staff works with you to design the appropriate assays for your particular requirements. Contact us today for a **confidential** discussion about how ReachBio can help your organization with its predictive toxicology needs.

## ReachBio LLC

Helping you exceed your grasp™

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