H/D Interaction Mapping

Fully automated, high throughput H/D Exchange technology provides a high resolution fingerprint of the structure and dynamics of proteins under many conditions
It is the quickest and most robust, high resolution method available for understanding complex biological systems
By forming a relationship, LEAP and ExSAR can now offer independent access to this analytical platform

Well established industry supplier

Flexible design adaptable to most MS systems in use

Nationwide support

Method development

System support, consulting and training
Equipment software integration

Flexibility of the LEAP design allows multipurpose application of equipment

Unlike most other task specific automation and processes, the LEAP system can be tasked to function within most lab settings when not running H/D Exchange

This reduces the associated development costs and eliminated the need for a dedicated MS system

ExSAR provides H/D Exchange services to the International pharmaceutical industry

H/D Exchange methods development

Operates established methodologies for a wide range of targets

Proprietary software for the automated analysis of H/D Exchange data

System support, consulting and training

Application development and supply of consumables that outperform commercially available products

Over the past five years, ExSAR has developed and operated the only commercial H/D Exchange technology service available

Previously available as a service, ExSAR can now offer access to analytical software, established methodologies and necessary consumable parts

Applications of Hydrogen Deuterium Exchange

Drug Discovery:

Rapid identification of ligand binding sites
Correlation of ligand binding sites and pharmacology (agonists, antagonists, allostery, repressors etc.)
Enabling a "fragment assembly" strategy without the need for X-ray structures.
Identifying protein states relevant to drug discovery and development.

Structural Biology:

Rapidly identifying disordered regions in protein constructs preventing crystallization.
Rapidly identifying optimal conditions leading to protein stabilization and crystallization.
Identifying mutant forms of the protein imparting stability under a variety of laboratory or industrial conditions.

Discovering and Developing Biologicals:

Rapid mapping of epitopes of antigen-antibody interactions.
Detailed analysis of protein-protein and peptide-protein interactions.
Comparing biopharmaceutical batches, rapidly determining bioequivalence.

Contact LEAP Technologies info@leaptec.com
www.leaptec.com 800-229-8814

H/D-Exchange Automation and Start-Up Package by

LEAP TECHNOLOGIES & ExSAR

- **Basic Automation Package:**
  - Twin PAL workstation with temperature controlled zones and LC valves
  - LEAP Shell 3 Control Software
  - Suite of Sample Prep. programs, includes editor for method customization
  - Instrument support and training

  This package provides all elements to successfully start an automated sample processing operation with a minimal footprint and with all hardware and software required to set up labeling experiments and run digestion and separation chromatography on your Mass Spec. The package includes installation and operator training together with 12 month support for hardware and software

- **Supplementary Applications Kit:**
  - Method documentation package
  - Licensed HDExpress data processing software
  - Set of consumables
  - Support and training for running, troubleshooting methods
  - Consulting services on pro-rata basis
  - This package is a comprehensive solution for customers wishing to establish H/D Exchange capability using methodologies which are used by ExSAR Corp., a commercial service provider in this field