



# TWO PLATFORMS. ONE TEAM.

All focused on your evolving liquid handling needs.



DISCOVERY  
*in motion.*

 **BECKMAN  
COULTER**  
*Life Sciences*

# WE UNDERSTAND THE PAIN POINTS IN YOUR DRUG DEVELOPMENT PROCESS

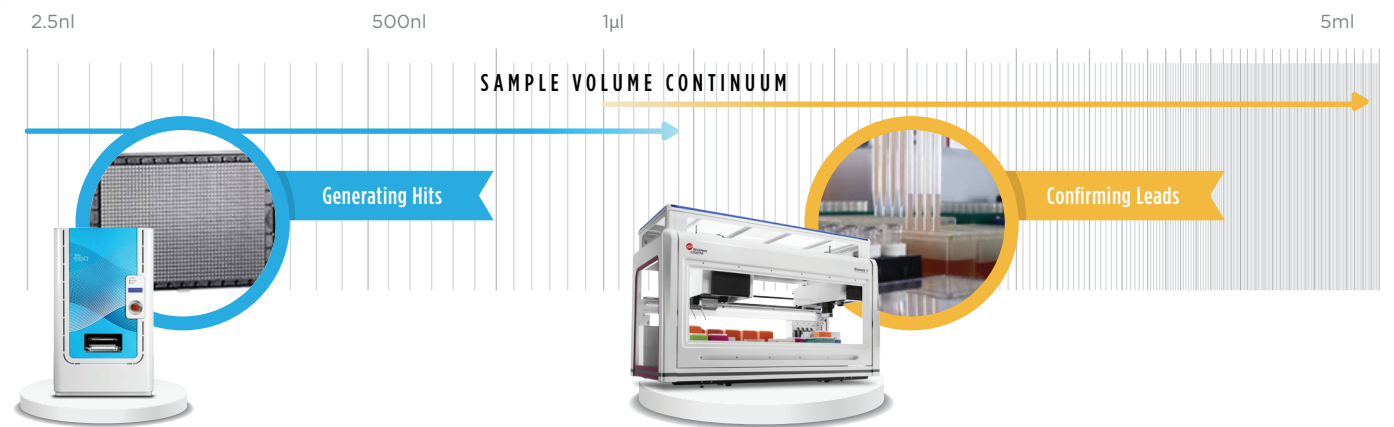
The science of drug discovery continues to increase in pace and complexity, and most labs focused on researching new therapies face multiple and similar challenges, including:

- Annual budgets that typically don't change, regardless of how quickly your research priorities can
- Time and resource limitations for critical things such as dedicated automation engineers, independent verification and validation (IV&V) programs<sup>1</sup> and training/re-training staff
- Balancing today's immediate liquid handling needs with a need to plan for tomorrow's unforeseen demands

That's why you need to partner with **experts in fluidtransferology** – the professionals at Beckman Coulter Life Sciences who can help you **efficiently, and cost-effectively, accelerate your drug discovery workflows.**

<sup>1</sup> Raphael MP, Sheehan PE, Vora GJ. A controlled trial for reproducibility. Nature. 2020 Mar;579(7798):190-192. doi: 10.1038/d41586-020-00672-7.

Better + together:  
we're creating the next wave in optimized liquid handling



#### ► Echo acoustic liquid handlers

Moving liquids with sound enables contactless, tipless, accurate and precise transfers for sensitive and reproducible workflows.

#### ► Biomek i-Series liquid handlers

Optimized for ease-of-use, dependability and walk-away time for a variety of throughput needs.

Whether your pipeline is focused on small molecules or biologics—at the nanoliter or milliliter scale—our automation team is committed to helping you solve today's challenges, without losing sight of what the future might bring.

**Your samples. Your data.**  
We help you easily manage both.

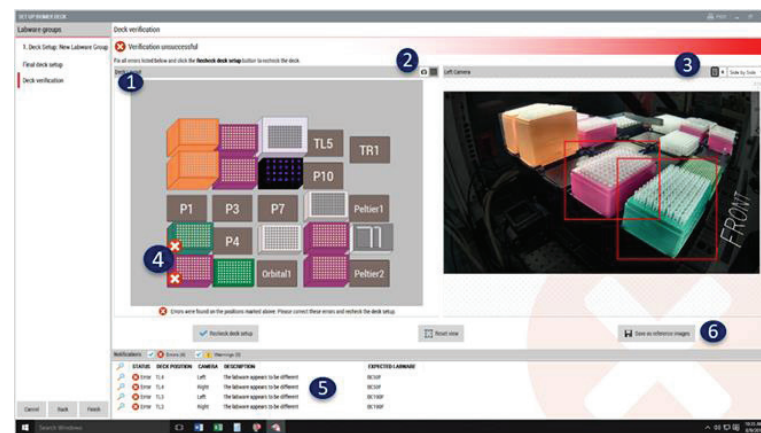


Drug discovery is all about the numbers. A sometimes overwhelming amount of numbers.

Maintaining traceability of billions of cells or hundreds, maybe thousands of compounds. Library screening and hit identification. Countless hours spent at the bench, followed by dozens more hours spent mining millions of data points.

Liquid handling automation technology and software can help you take control of all these numbers - and more - by enabling you to minimize the potential for errors and user-to-user variability inherent with manual liquid handling.

And when your workflows change, or when the science itself evolves, you'll have a team of experts ready to assist you with new demands for sample and data management.



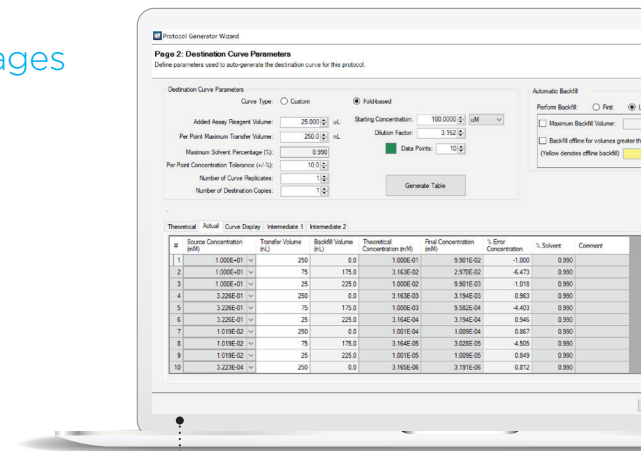
Reliable instruments + Easy-to-use software  
= Reproducible success



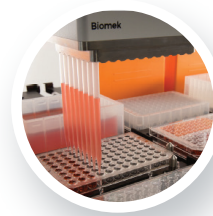
### Echo Acoustic Technology Advantages

- Maximize productivity through miniaturization and contactless automation
- Increase data quality through highly precise and accurate fluid transfers made possible by Dynamic Fluid Analysis
- Accelerate productivity by reducing staff training barriers by providing turnkey, user-friendly instrumentation and software
- Enable previously complex workflows through the ability to dispense from any stock/source well to any assay/destination well

Echo applications feature intuitive, user-friendly interfaces to help you quickly create protocols. For example, using Echo Dose Response tells you the desired final assay concentrations per data point immediately after you create your protocol. You also have the flexibility to customize your assay by adding additional concentration points within the protocol.



Echo Applications example:  
interactive dose response  
curve generation



### Biomek i-Series Platform Highlights

- Open platform with adaptability to extend scale and reach
- Rotating gripper with unique offset fingers optimizes access to high-density decks, enabling more efficient workflows
- DeckOptix cameras enable live, remote-monitoring and on-error video capture
- Library of demonstrated methods for genomics and extraction
- Proof of concept application notes for a library of comprehensive drug discovery workflows

Biomek software provides options for easy operation and method authoring. For an even more streamlined experience, optional Biomek Method Launcher software provides a simplified point-and-click interface to help make it easy for less-experienced operators to run frequently used methods.



Biomek software suite  
highlight: Method  
Launcher

# Two flexible liquid handling platforms for your evolving small- and large-molecule workflows



In 2019, Beckman Coulter added the Echo acoustic liquid handling platform to our automation portfolio. This technology revolutionized the drug discovery paradigm by enabling unprecedented advances in areas such as genomics and synthetic biology.

As your therapeutic technologies and discovery pipelines evolve, you need versatile liquid handlers that are ready to take on the next research challenge. When your key needs evolve into unforeseen possibilities, our scalable platforms can evolve right along with you.



## COMPOUND MANAGEMENT & HTS

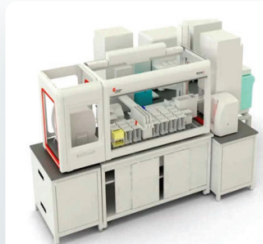
Start with us on a journey that begins with meeting your core needs for robust, reliable, miniaturized sample management and assay-ready plate creation.

The Echo 650 series acoustic liquid handler is fully upgradeable to the 655 for additional speed, and can be upgraded to enable Brooks FluidX™ AcoustiX™ tube capabilities for fully contactless sample management.

## CELL LINE DEVELOPMENT

As biologics research continues to evolve and gain prominence in therapy development for disease states, the need for reliable and robust cell lines will greatly increase. The Biomek i-Series is an open, flexible platform that enables integration of components to meet your lab's workflow needs.

Start by automating critical, labor-intensive bottlenecks, and then transform your system into a complete development solution as your requirements evolve.



## AUTOMATED IMMUNOASSAYS

Biologics screening and analytical workflows are well suited for both liquid handling platforms.

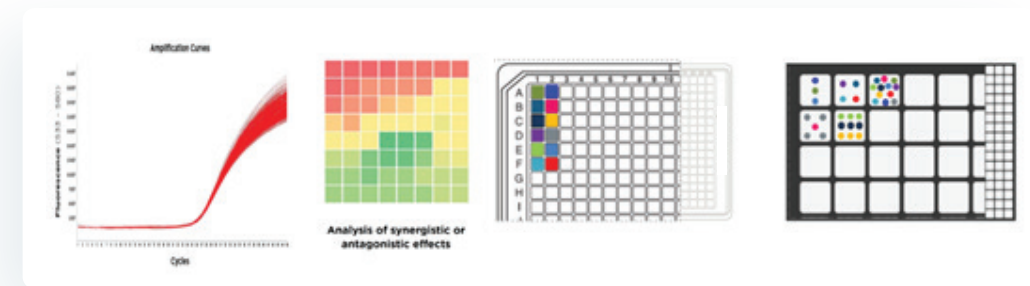
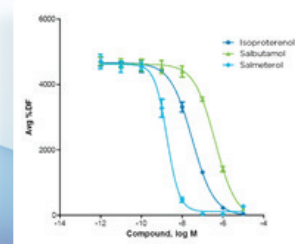
Biomek i7 workstations can scale up cell-based assays and automate a variety of methods such as label-free ELISA. The 96- or 384-well multichannel head on the Biomek i7 hybrid enables rapid transfer of pre-titrated samples directly to the assay plate.



## DIRECT DILUTION

Once primary screening concludes, you'll want a deeper profile of your putative actives. Acoustic direct dilution of small molecules and biologics prevents inaccurate curve creation by dispensing stock solutions directly to the assay plate.

Further, acoustic dispensing reduces the possibility for compound precipitation when diluting solvents to acceptable final levels (e.g. DMSO <0.5%). The Echo enables simple, on-the-fly, dose response curve creation with high precision and accuracy. It's a streamlined, efficient and highly reproducible process when protocols are created with Echo Dose Response software. And with your library plated into FluidX™ AcoustiX™ tubes, you can extend sample life by directly dispensing from stock solutions of cherry-picked samples.

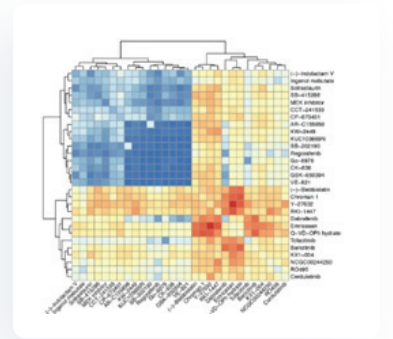


## FUNCTIONAL AND PHYSIOLOGICALLY RELEVANT ASSAYS

Why aren't all assays "dispense and read" with a 0.9 Z'-factor?

Unfortunately, real-world biology tends to require workflows that provide flexible but precise solutions for understanding molecular mechanisms of action. The Echo is ready to add value in genomics applications such as:

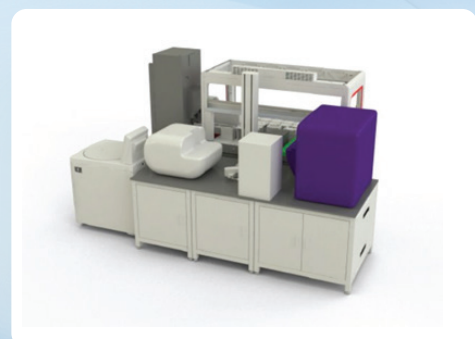
- High throughput RT-qPCR
- Functional genomics screens (siRNA & CRISPR-Cas libraries)
- Drug profile screens from physiologically relevant cell models such as primary cell cultures



## AUTOMATED CELL MAINTENANCE

Have an increasing need for cell-based assays? Continuous cell culture gives you the ability to have plates readily available to test potential agents, or to have large quantities of multiple cell lines available for assays.

With a continuous cell culture Biomek solution, you can react quickly to requests from assay-development labs for screening, or provide them with batches of cell lines; multiple requests are often received in parallel. We enable standardization of cell-based workflows through software tools such as SAMI Process Management Software. Our team can help you build a solution that meets your needs and remains flexible as your cell lines expand and culture workflows scale up.



## RAPID COMBINATORIAL ("ANY WELL TO ANY WELL")

Trying to deconvolve polypharmacology? About to embrace the "Synbio-pharma" revolution? Small molecules AND biologics combined in the assay?

Echo Combination Screen software enables variable layouts and combinations of fluids.

When you're ready, you'll be launching into the future with a platform that, by its nature, enables previously implausible workflows. When experiments involve multi-factorial designs, you'll find our liquid handlers were developed with adaptable, user-friendly software.

If you need help putting it all together, our consultants, applications scientists and field project managers are ready to assist.

# We're with you on the journey from standalone, scaled-up solutions to fully integrated systems

Many of our customers find value in keeping their researchers focused on challenges that can't (currently) be automated.

We help them handle the rest.

Our automation solutions are designed to evolve as your workflows takes on additional complexity and require greater throughput. We can help you optimize your entire workflow to achieve reliable,

trustworthy results—whether you need low- or medium-throughput configurations, simple add-on deck configurations, or complex automated robotic systems.

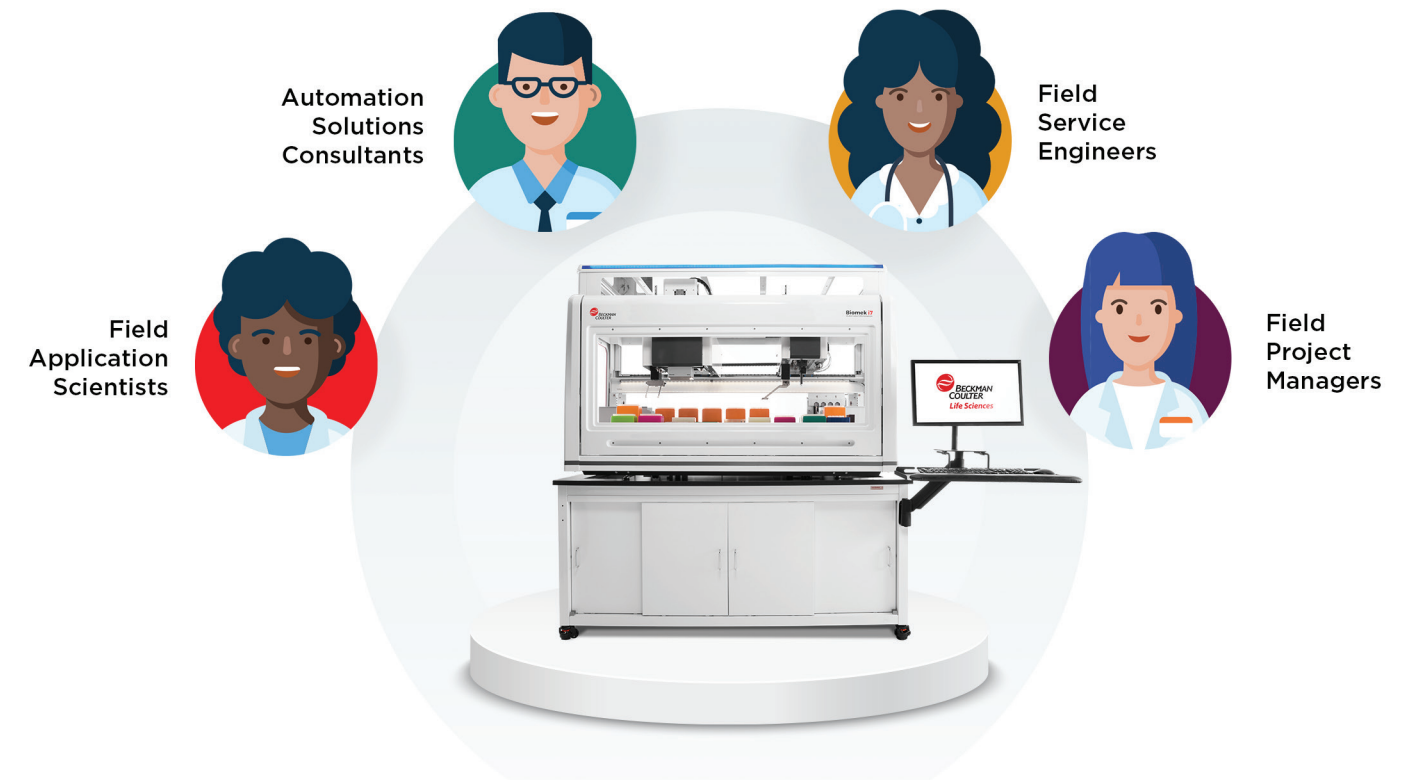
As the experts in fluidtransferology, we have more than 30 years' experience collaborating with laboratories around the world to help overcome workflow challenges through successful integration of tailored liquid handling automation.



# Scientists ready to serve

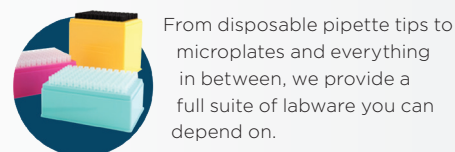
Key to ensuring that your solutions are future-proofed isn't simply cutting-edge, user-friendly instrumentation.

It's our team of solutions consultants, application scientists and project managers, who are ready to unleash their expertise and creativity to tackle your immediate and long-term needs. What's more, they're partnered with a global service infrastructure that's ready and able to turn a proposed solution into a physical reality.



## Consumables

Biomek tips and labware.  
Excellence for the critical point of contact.



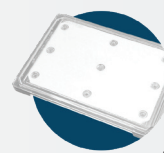
From disposable pipette tips to microplates and everything in between, we provide a full suite of labware you can depend on.

Biomek disposable tips are the only tips designed, validated and approved for Biomek Liquid Handlers. Because they're made using stringent manufacturing processes, we guarantee proper fit and performance of our tips on your Biomek liquid handler.

## Echo Qualified Consumables: Precision Manufacturing and Exceptional Performance



Echo Liquid Handlers are designed to use Echo Qualified 384-well and 1536-well source microplates for precise and accurate liquid transfer. Beckman Coulter performs functional qualification tests on each microplate lot with an Echo Liquid Handler to verify our microplates deliver superior performance and DMSO hydration measurements.



MicroClime Lids incorporate a unique, fluid-absorbing matrix that creates a vapor barrier to protect samples from the environment, especially near the edges of the microplate. They help prevent DMSO hydration (when filled with DMSO) as well as for cell culture (when filled with water), and are compatible with a variety of standard microplates.

## Where do we begin?

1

### Consultative workflow analysis

- from a team that doesn't want to sell you an instrument, but instead wants to help design a total solution that meets your lab's needs.

2

### Expert applications and technical support

- from scientists experienced with your applications, as well as from skilled trainers who'll provide comprehensive, hands-on training for you and your staff.

3

### Responsive service support

- including remote, camera-enabled monitoring and onsite visits from an organization rated higher for technical service/support than any of our major competitors.

4

### Scientific partnership

-between your team and ours, to identify speaking opportunities, conference activities and other ways to shine a spotlight on your research.

For more information, contact your  
Beckman Coulter Life Sciences representative  
or contact us via [beckman.com](https://www.beckman.com).



Beckman Coulter Life Sciences liquid handlers are not intended or validated for use in the diagnosis of disease or other conditions.  
© 2021 Beckman Coulter, Inc. All rights reserved. Beckman Coulter, the stylized logo, and the Beckman Coulter product and service marks mentioned herein are trademarks or registered trademarks of Beckman Coulter, Inc. in the United States and other countries. ECHO is a trademark or registered trademark of Labcyte Inc. in the United States and other countries. All other trademarks are property of their respective owners.

---

For Beckman Coulter's worldwide office locations and phone numbers, please visit Contact Us at [beckman.com](https://www.beckman.com)

20.12.589.AUTO