

Set high-quality mass spectrometry to warp speed: accelerating drug discovery

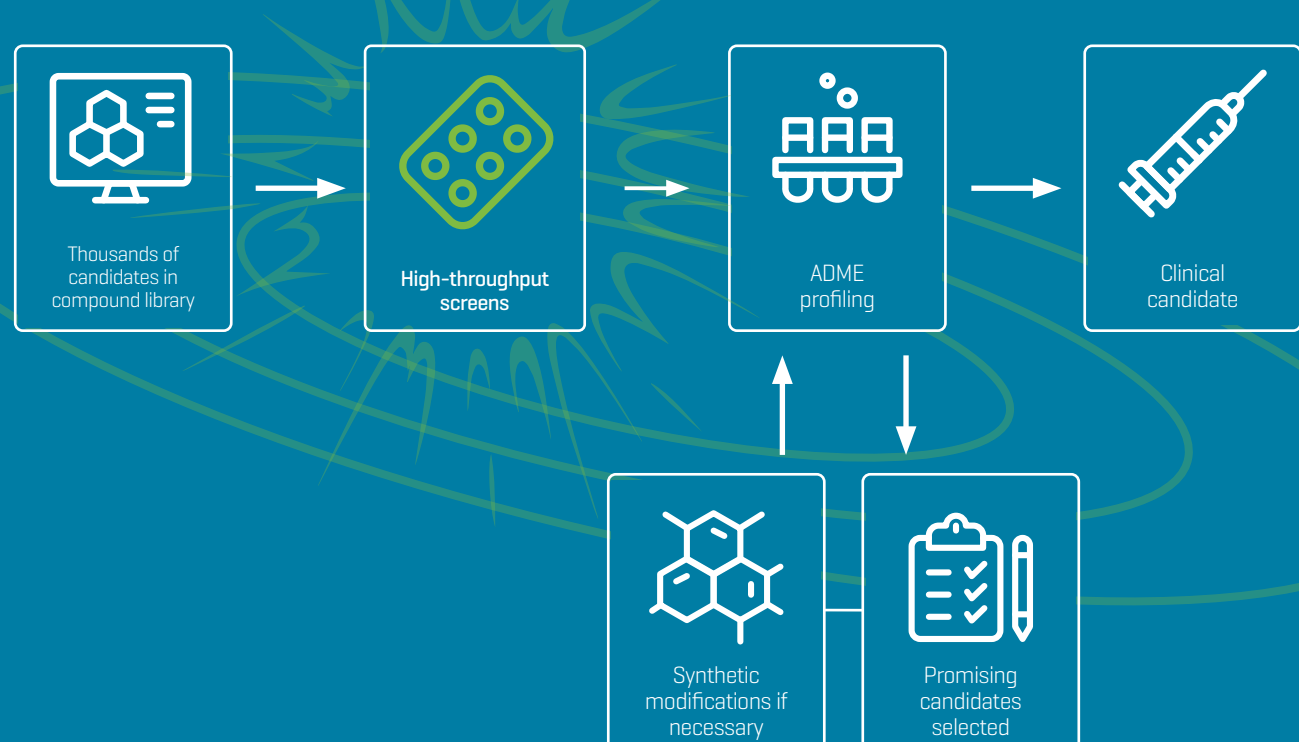


On average, it takes 10-15 years and \$1-2 billion to approve a new pharmaceutical for clinical use.¹ Since approximately 90% of new drug candidates fail in clinical development, the ability to make early, informed and accurate decisions on the safety and efficacy of new leads is key to maximizing success.²

This infographic explores the benefits of Acoustic Ejection Mass Spectrometry (AEMS)-based workflows for efficient and rapid lead optimization of drug candidates.

Why is high-throughput screening needed?

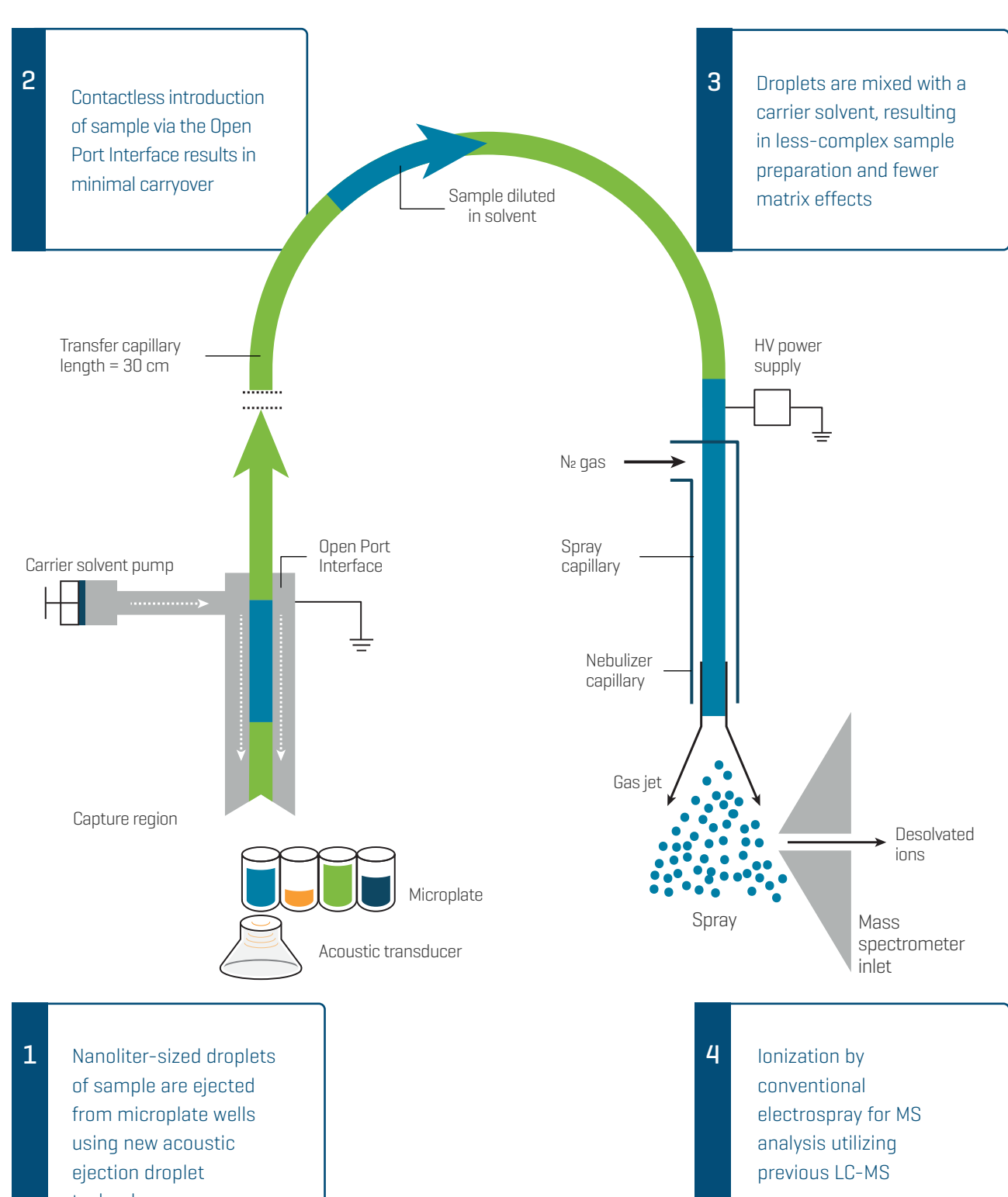
Drug discovery demands quality data and high throughput at the lowest possible cost. By driving key decisions earlier in the process, these attributes increase the likelihood of developing successful clinical candidates.



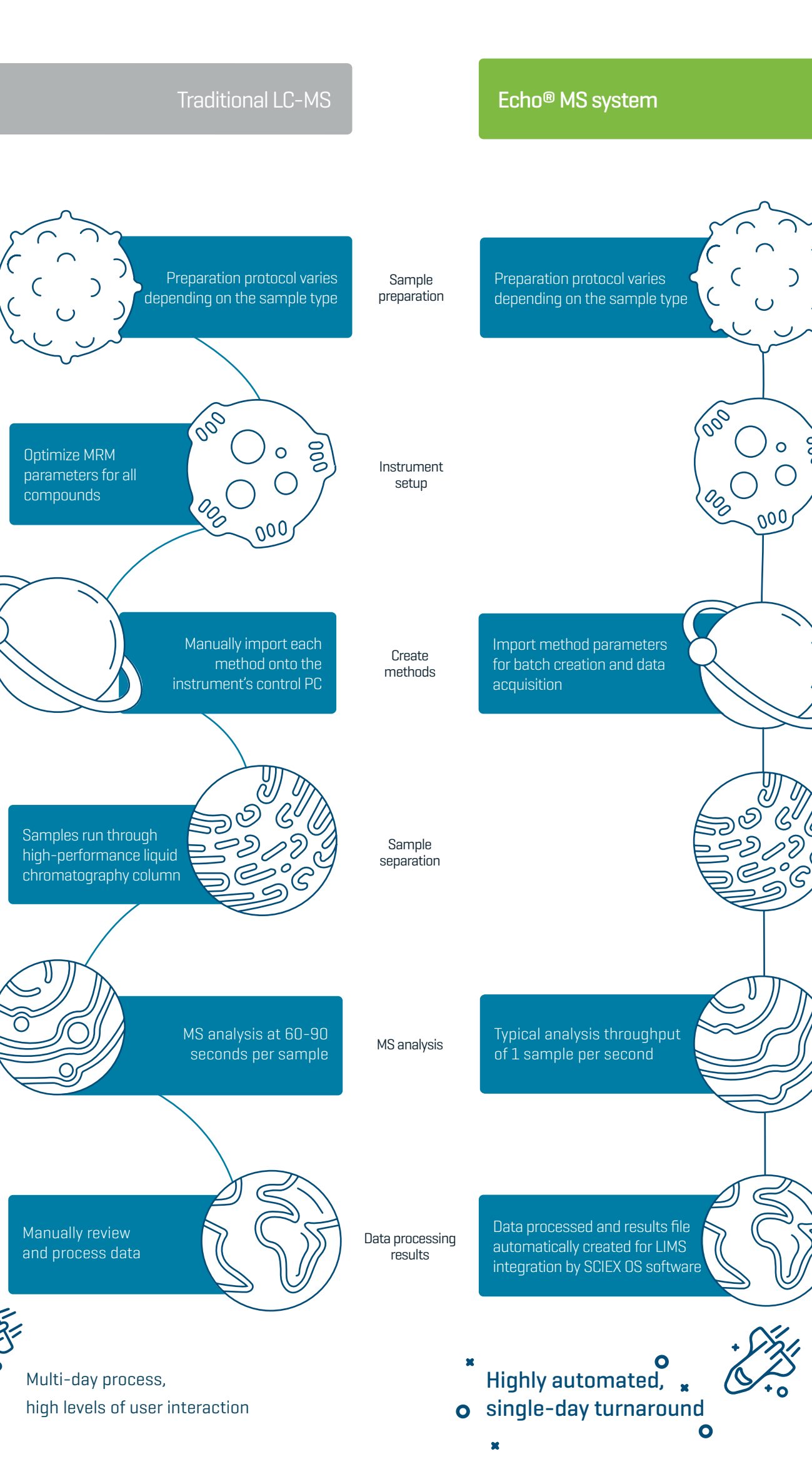
Addressing the challenges of traditional methods

Key decisions about drug candidates depend on the quality of the data analysis. Liquid chromatography-mass spectrometry (LC-MS) has been the gold standard for lead drug identification assays. However, more high-throughput assays that are just as selective and sensitive are now needed to meet the demands of drug discovery.

The Echo[®] MS system produces results with the precision and accuracy of traditional LC-MS techniques in a far shorter time frame.



Shoot for the moon: optimizing high-throughput mass spectrometry screening



Streamlining drug discovery with innovative mass spectrometry solutions

- Nanoliter sample consumption allows repeated analysis of the same sample
- Acoustic ejection reduces the risk of chromatography issues and sample carryover
- Analysis is up to 50x faster than LC-MS
- Leverage the common compound database and work globally, seamlessly
- Easy integration into existing workflows

Learn more about the power of the Echo[®] MS system to accelerate drug discovery.

References
 1. Sun D, Gao W, Hu H, Zhou S. Why 90% of clinical drug development fails and how to improve it? *Acta Pharmaceutica Sinica B*. 2022;12(7):3049-3062. doi:10.1016/j.apsb.2022.02.002
 2. Lowe D. The latest on drug failure and approval rates. *Science*. <https://www.science.org/content/blog-post/latest-drug-failure-and-approval-rates>. Published May 9 2019. Accessed October 28, 2022.
 3. [failure-and-approval-rates](https://www.science.org/content/blog-post/latest-drug-failure-and-approval-rates). Published May 9 2019. Accessed October 28, 2022.

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