



Diagnosics and Lab Testing Deals: *Fueled by Precision Medicine in the Post Genomics Era*

KPMG Deal Advisory and Strategy | Life Sciences
July 2024



Topics Covered Today



**M&A Activity
Overview**



**Key Deal
Highlights**



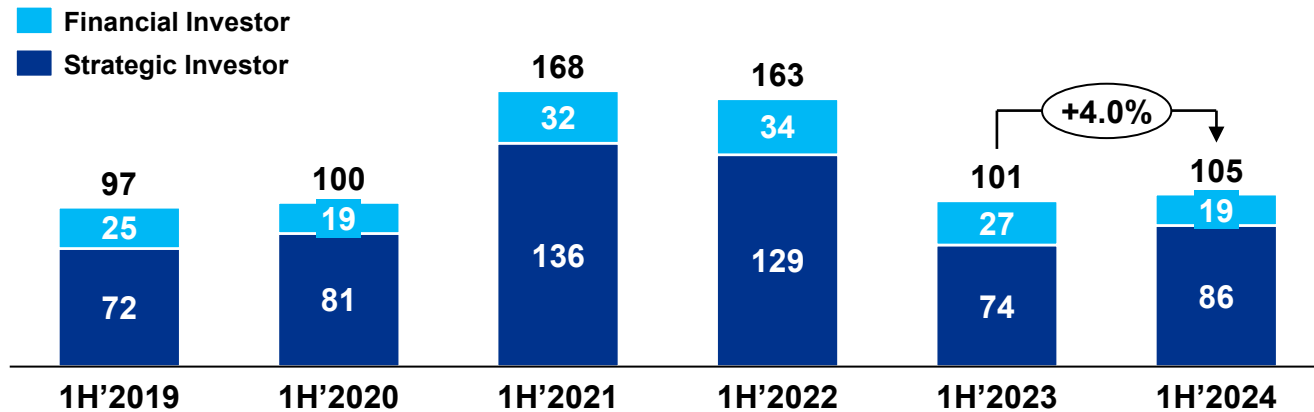
**2024 Deal
Trends**



**The Year
Ahead**

Lab services and diagnostic deal volumes were up slightly in the first half of 2024 compared to 2023, driven by strategic buyers in the diagnostics sector

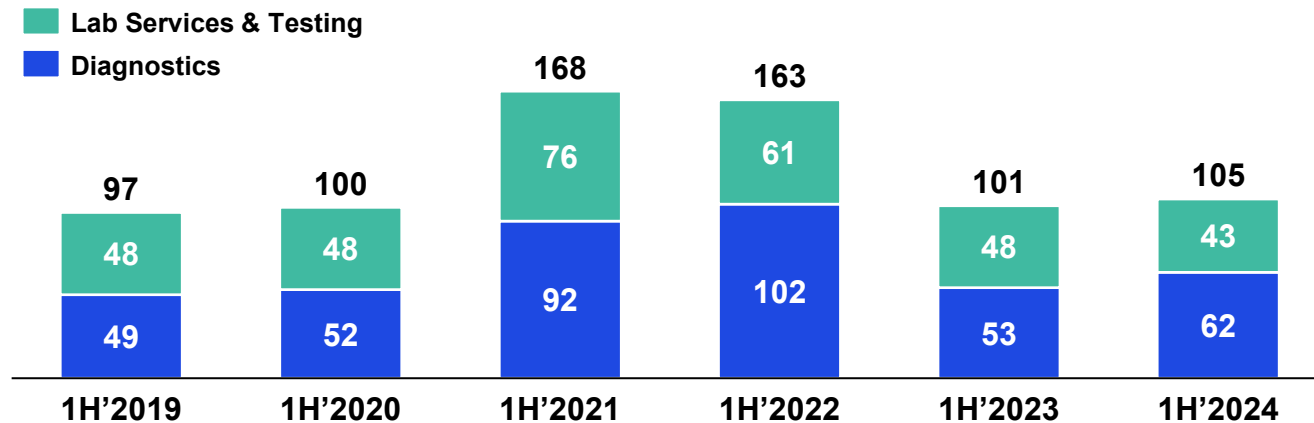
M&A Volume by Investor Profile & Subsector (1H'2019 – 1H'2024) ¹



Comments













First half of 2024 saw a small **uptick in deal volume** compared to 2023 **driven by strategic buyers**; however, **PE deal activity was sluggish**, with a decline in deal volume compared to the first half of 2023






Overall deal **volume growth driven by diagnostics sector**; while lab services deal activity has declined compared to first half of 2023

While deal volume appears to be trending upward, deal size has declined over the last 12 months, with fewer billion dollar deals compared to the same period last year

Top 5 Largest Deals: Life Science Lab Services & Diagnostics¹

Jul 2022 – Jun 2023			
Buyer	Target	Category	Deal Value
		Clinical Lab Services	\$3.6B
		Specialty Diagnostics	\$2.5B
		Pathology Lab Services	\$2.2B
		Specialty Diagnostics	\$2.0B
		Diagnostics Kits & Reagents Manufacturer	\$1.5B

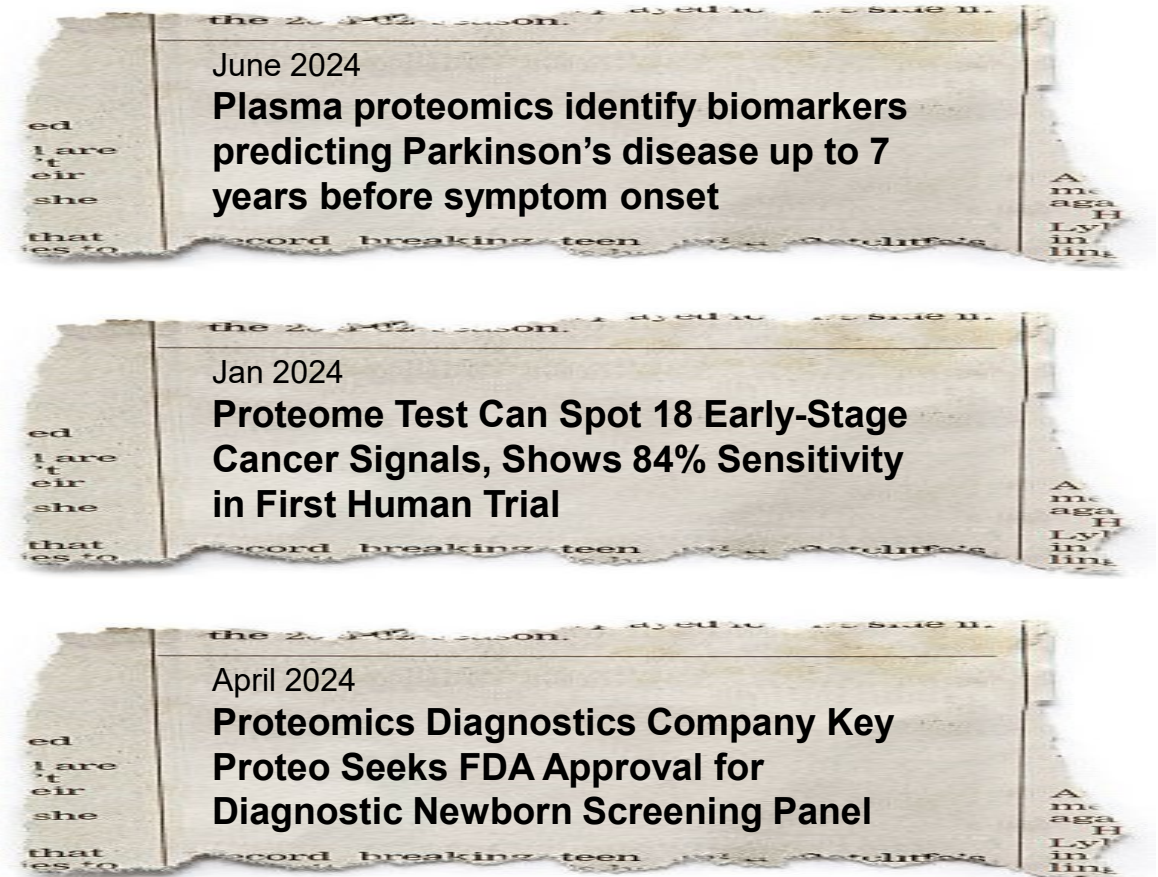
Jul 2023 – Jun 2024			
Buyer	Target	Category	Deal Value
		Proteomic Tools & Diagnostics	\$5.7B
		Proteomic Tools & Diagnostics	\$3.1B
		Molecular Diagnostics	\$0.9B
		Proteomic Tools & Diagnostics	\$0.6B
		Spatial Biology & Gene Expression Tools	\$0.4B

The top 5 deals in the last 12 months are fueled by precision medicine in the post genomics era, with companies focused on expanding in proteomics and spatial biology

Recent advances in proteomics technologies are accelerating clinical biomarker discovery...

- We are now **able to sequence the genome** at a fraction of the cost and increasing speed compared to when the first human genome was sequenced in 2003, but only **recently have we been able to measure enough proteins to obtain a signal and understand it**
- Advances in **mass spectrometry, spatial imaging, affinity-based proteomic tools, and more** are enabling high-throughput proteomic analysis to **identify predictive biomarkers across diseases**
- Researchers expect **multi-omics approaches**, combining both complementary proteomic and genomic data, will provide even **deeper insight into cellular mechanisms and disease biology**

...and advancing precision medicine and diagnostic development across disease areas



Bruker completed multiple strategic acquisitions to become a “leader of the post-genomic era” over the last 12 months



Bruker’s ambition to be a “**Leader of the Post-Genomic Era**” drove a series of strategic investments across **proteomics, multi-omics, and spatial and single-cell biology**, in addition to bolt-on acquisitions in core business areas

Strategic Acquisitions: Driving leadership in “post-genomic era”

Spatial & Single-Cell Biology



- US-based; single-cell and spatial biology research tools
- Acquired Aug 2023 for **\$136M**



- US-based; gene expression analysis and spatial biology tools
- Acquired Apr 2024 for **\$393M**

Molecular Diagnostics



- Europe-based manufacturer and distributor of IVD and MDx products
- Acquired Feb 2024 for **\$936M**

Lab Automation



- Swiss-based; automated laboratory R&D and QC workflow solutions
- Acquired Jan 2024 for **\$175M**

Bolt-on Acquisitions: Strengthening core technology capabilities



- **UK-based** optical cell imaging and algorithms
- Acquired Dec 2023 for **\$6.4M**



- US-based developer and manufacturer of EELS
- Acquired Jan 2024 for **\$58M**



- **Canada-based** full service Raman instrument player
- Acquired Jan 2024 for **\$22.6M**



- US-based manufacturer of preclinical in-vivo imaging OS
- Acquired Feb 2024 for **\$37.5M**



- **Japanese** technology player in Raman microscopy
- Acquired Feb 2024 for **\$17.5M**

Over the past 12 months, ThermoFisher, Danaher and Standard Biotools also made strategic acquisitions to expand multi-omics and proteomics capabilities



Oct '23

Thermo Fisher completed **\$3.1B acquisition of Olink**, a Sweden-based provider of next-generation proteomics solutions

“ *The acquisition of Olink underscores the **profound impact that proteomics is having** as our customers continue to advance life science research and **precision medicine***

Marc N. Casper
Chairman, President & CEO, Thermo Fisher

Dec '23

Danaher completed **\$5.7B acquisition of Abcam**, a provider of antibodies and proteomic tools for research, discovery and diagnostics

“ *The addition of Abcam to our Life Sciences segment expands our presence in the **highly attractive proteomics market** and is furthering our strategy to help **map complex diseases***

Rainer M. Blair
President, CEO & Director, Danaher

Jan '24

Standard BioTools completed its **\$0.6B merger with SomaLogic**, creating a leading provider of differentiated multi-omics tools

“ *The combined company...represents certainly the **broadest next generation of solutions serving the proteomics customer and market in the beyond genomics era***

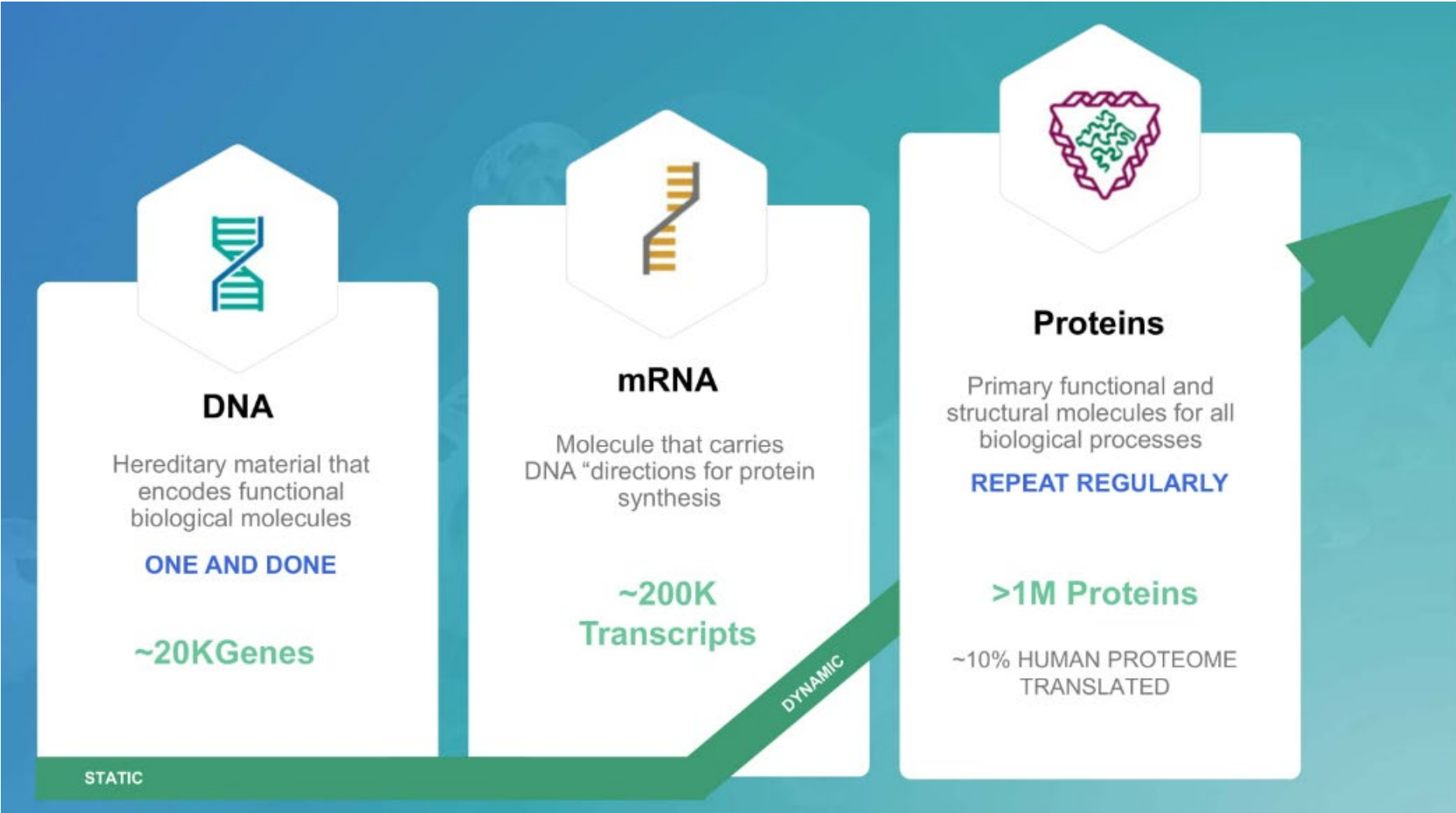
Michael Egholm
President & CEO, Standard BioTools

The diagnostics industry is lockstep with pharma in this regard: 9 of the top 10 biopharma deals in 2023 involved acquisition targets with a presence in precision medicine

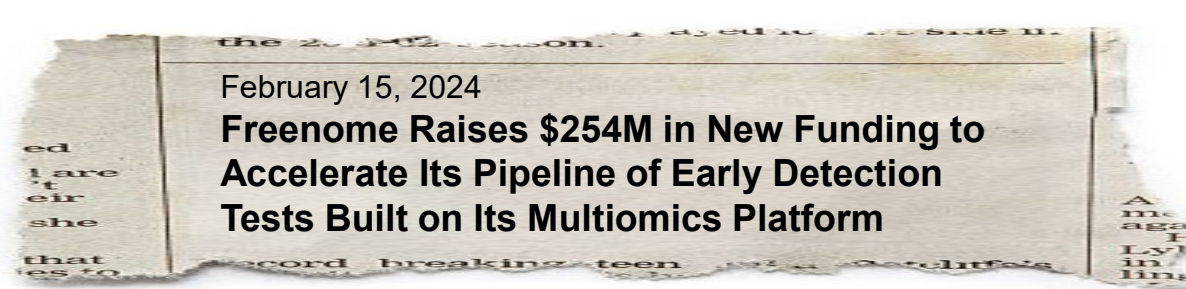
 **Top 10 Biopharma Deals by Value in 2023**

	Acquirer	Target	Deal Month	Deal Value	Primary Therapy Area	Precision Medicine Component
1	Pfizer	Seagen	March	\$43B	Oncology	Seagen has a portfolio of antibody-drug conjugates (ADCs) for various oncology indications
2	BMS	Karuna	December	\$14B	CNS	None
3	Merck	Prometheus	April	\$10.8B	Immunology	Prometheus is developing PRA-023 for various autoimmune indications. The asset targets TL1A, and the company is stratifying patients using a CDx
4	AbbVie	Immunogen	November	\$10.1B	Oncology	Similar to Seagen, Immunogen brings AbbVie a portfolio of ADCs
5	AbbVie	Cerevel	December	\$8.7B	CNS	Cerevel is developing a portfolio of CNS assets, using patient stratification based on disease phenotype (e.g. late vs. early Parkinson's)
6	Biogen	Reata	July	\$7.3B	CNS	Reata focuses on rare disease, including Skyclarys for Friedreich's ataxia
7	Roche	Telavant	October	\$7.1B	Immunology	Similar to Merck/Prometheus, Telavant has an asset targeting TL1A
8	Astellas	Iveric	April	\$5.9B	Ophthalmology	Iveric brings Astellas a portfolio of assets for rare retinal eye diseases
9	BMS	Mirati	October	\$4.8B (plus \$1B CVR)	Oncology	Mirati has launched Krizati, for lung cancers with G12C mutations
10	BMS	RayzeBio	December	\$4.1B	Oncology	RayzeBio is developing a portfolio of radioligand assets for various cancers

The amount of data generated by 'omics is skyrocketing



The next frontier involves bringing different datasets together via multiomics platforms and using machine learning and AI to make sense of the vast amount of omics data



Freenome Overview

- Freenome analyzes blood samples via a multi-omics approach that incorporates genomic, proteomic, transcriptomic, and methylomic analyses
- Its platform relies on machine learning and computational biology to scan those analyses and look for markers found both within and outside of tumors linked to the earliest stages of cancer
- It also includes real-world clinical data to provide even more data to drive early detection
- Freenome has partnered with Oracle, Siemens, Biognosys, and many more to achieve its objectives

DeepMind Overview

- In 2021, Google used its AI tool, AlphaFold, to predict the shapes of nearly every protein in the human body
- By Sept 2023, Google had fine-tuned that protein model to predict which misspellings found in human DNA are safe to ignore and which are likely to cause disease via their new software, AlphaMissense
- Although AlphaMissense and AlphaFold have different objectives, the software is “leveraging the intuitions it gained” about biology from previous tasks via AI
- These predictions could speed diagnosis of rare disorders and more
- DeepMind has partnered with U.K.’s NHS, the Drugs for Neglected Diseases initiative, and more

Sources: MIT Technology Review; Company Websites; FierceBiotech

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What are we discussing with our clients in this environment?

The Role of AI and ML

Artificial intelligence (AI) and machine learning (ML) have the potential to help our industry in so many ways, including **making sense of the data deluge across omics, and often require partnerships outside of life sciences**

Adapting to the Post Genomic Era

Companies must consider how their **products and services will fit into the post genomic era** to ensure that they **stay relevant**

Looking Globally

The **biggest deals of the year continue to involve ex-US companies** that offer differentiated products and services

Focusing on Extracting Value from Acquisitions

Value creation and integration of acquired companies is increasingly challenging as companies grow beyond their core markets



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