PharmaPayWatch

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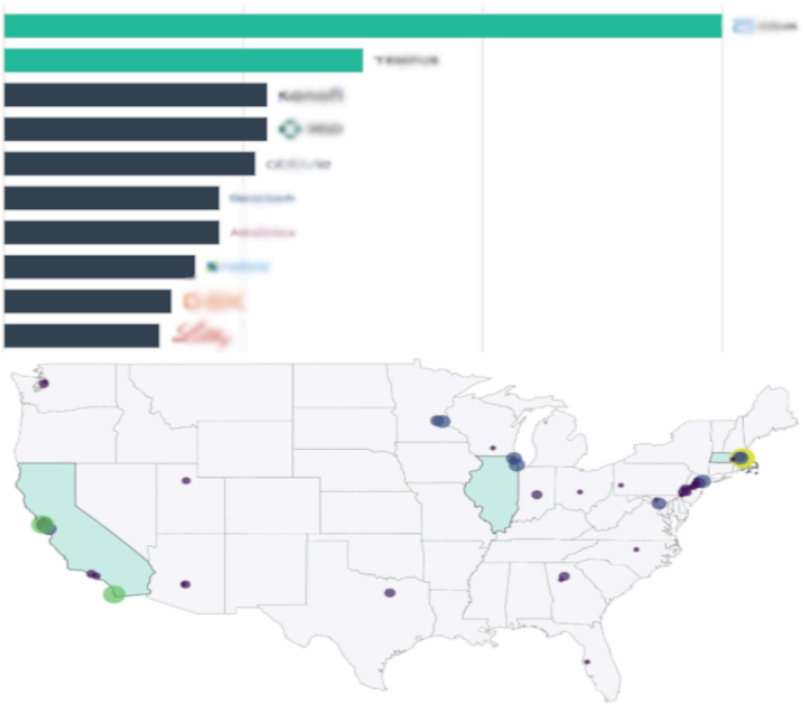
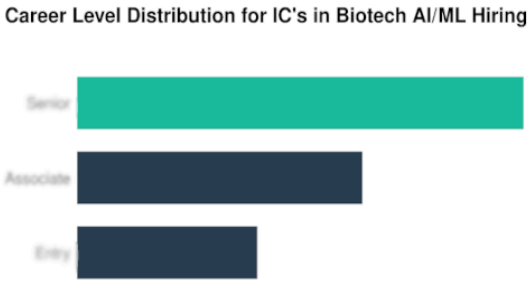
AI/ML Biotech Hiring Intelligence: Q1 2025 Brief

A concise hiring trends report for AI/ML roles in biotech based on 350+ job postings across a sampling of companies in Q1 2025.





EXECUTIVE SUMMARY

PharmaPayWatch directly monitors and analyzes the career pages of over 60 leading biotech and pharmaceutical companies to track real-time AI/ML hiring trends — before they're reflected on aggregators like LinkedIn or Indeed.

In Q1 2025, we analyzed 350+ job postings to uncover who's hiring, where demand is focused, and what companies are prioritizing in talent strategy.

Our analysis reveals a sharp geographic concentration in California and Massachusetts, a strong preference for experienced individual contributors, and notable salary stratification across role types. Abbott and Tempus AI led hiring, driven by internal AI/ML initiatives including new diagnostic tools and foundation model collaborations.

This brief report summarizes the key trends shaping AI/ML talent demand in biotech. Full reports provides salary benchmarks, tech stack breakdowns, Quarter over Quarter comparisons, and detailed company hiring strategies.

Key Findings

- 62% of AI/ML biotech jobs are located in California (35%) or Massachusetts (27%), with only 11% listed as remote.
- Abbott posted 60 AI/ML positions in Q1 — double the next closest company and driven by diagnostics business unit expansion.
- 80% of individual contributor roles target Senior (49%) or Associate (31%) level talent, with only 20% entry-level positions.
- AI/ML Engineering roles command the highest salaries at $189K median, while Clinical Data Science roles average $150K despite high demand.

1. Top Hiring Companies

Abbott led Q1 2025 AI/ML hiring with 60 roles — double that of Tempus AI, which posted 30. Merck and Sanofi followed with 22 roles each.

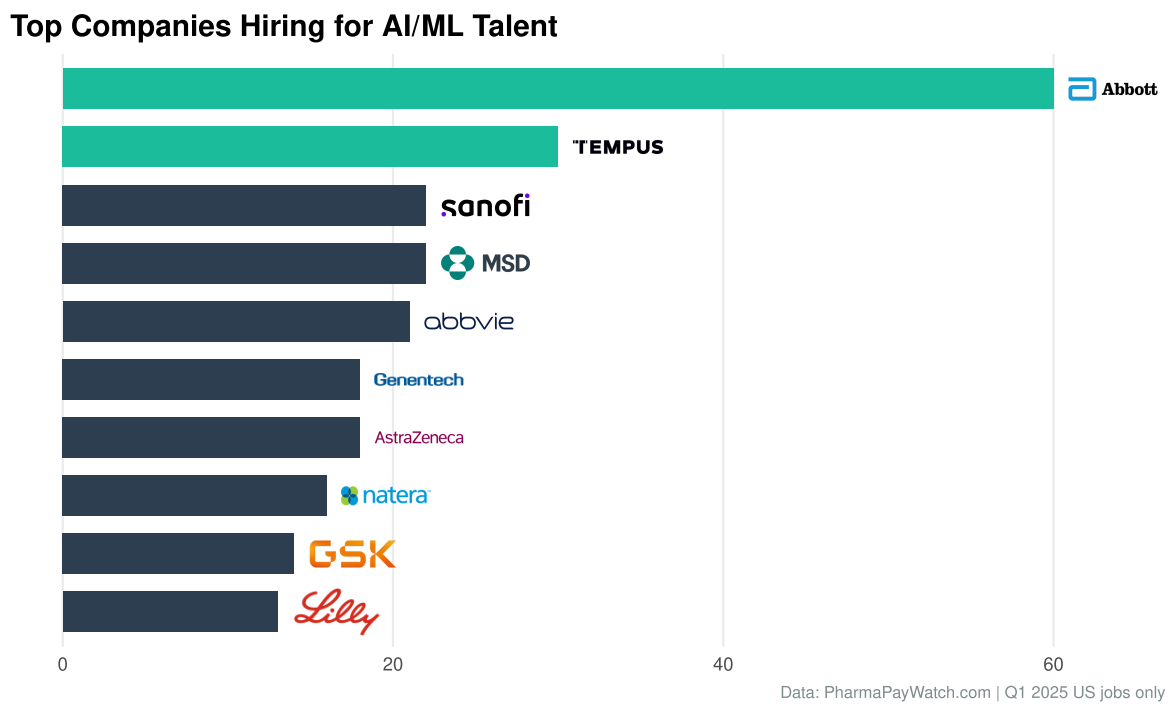


Figure 1. Top Companies Hiring for AI/ML Talent in Q1 2025. Abbott and Tempus AI posted the most AI/ML jobs, with Abbott posting double the roles of Tempus AI.

The AI/ML focus of Abbott and Tempus reflects key strategic initiatives at both companies. For Abbott, many of the positions were senior level in the diagnostics business unit while Tempus AI has recently launched a centralized health AI tool called olivia and is working on a new foundation model in partnership with AstraZeneca and Pathos.

2. Geographic Distribution

Our analysis of location data reveals that biotech AI/ML hiring remains heavily concentrated in traditional biotech hubs, with minimal remote opportunities.

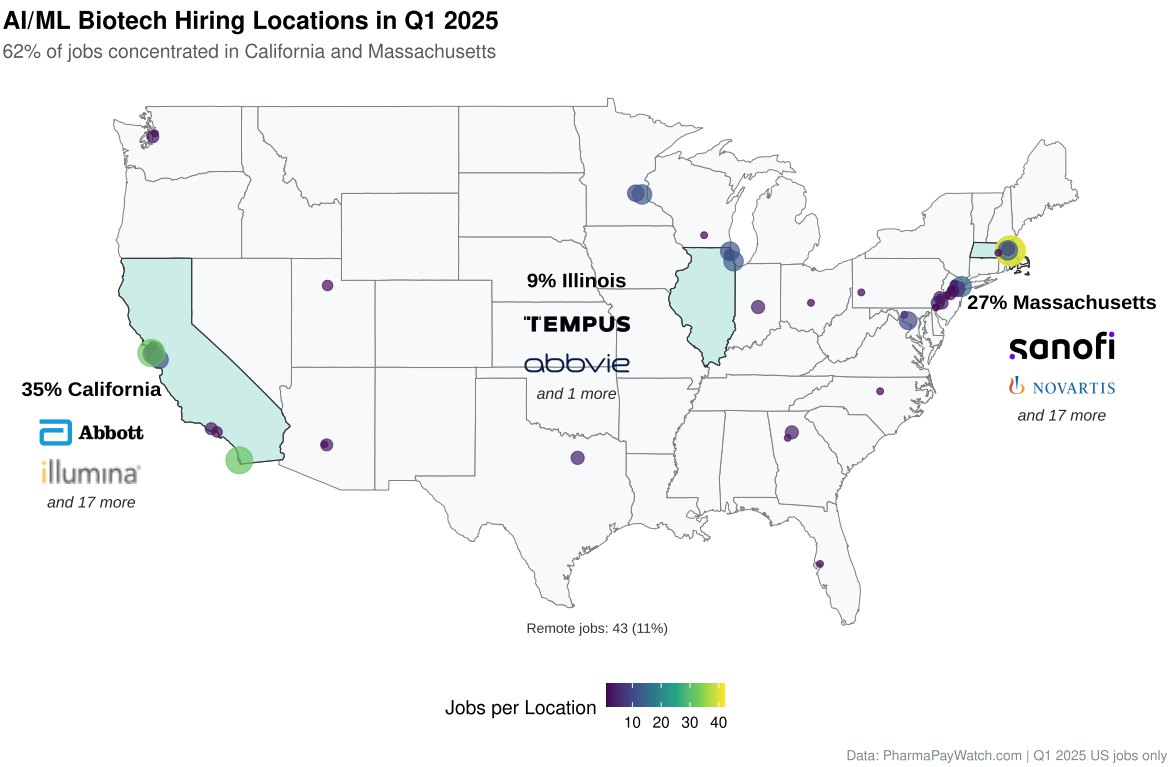


Figure 2. Map of the top hiring locations for AI/ML biotech jobs in Q1 2025. The top two companies are shown for the top three states. 62% of roles were posted for California or Massachusetts.

Abbott's hiring was split between California (34), Minnesota (21), Texas (5), and one position in Ohio. Tempus AI was flexible with location, often listing Boston, New York City, and Redwood City (CA) as possible locations for the same job. Overall, most

Tempus AI positions were listed near their headquarters in Chicago. The breakdown for Tempus's AI/ML job posts in Q1 were Chicago (17), Boston (10), New York (10), Redwood City (8), and San Francisco (3).

- **California: 35%** of all positions (primarily San Francisco Bay Area)
- **Massachusetts: 27%** of all positions (primarily Cambridge/Boston)
- **Illinois: 9%** (driven by AbbVie and Tempus in the Chicago area)
- **New York: 7%**
- **All other states: 23%** combined

Only 11% of positions were labeled as remote, though many were hybrid. This mirrors trends in our broader biopharma dataset and suggests a persistent preference for on-site work, even in AI/ML roles. The clustering reflects biotech's continued emphasis on in-person collaboration near wet-lab and clinical data teams, especially in established hubs. In a landscape where proprietary data access is a core competitive advantage, physical proximity to internal systems and experts may be critical for AI/ML teams to deliver value.

3. Experience Level Demand

Demand for individual contributors (ICs) was concentrated at the Senior (49%) and Associate (31%) levels, with only 20% classified as Entry level. Most Entry level positions were co-ops or internships, with very few companies looking for permanent roles for individuals just breaking into the industry.

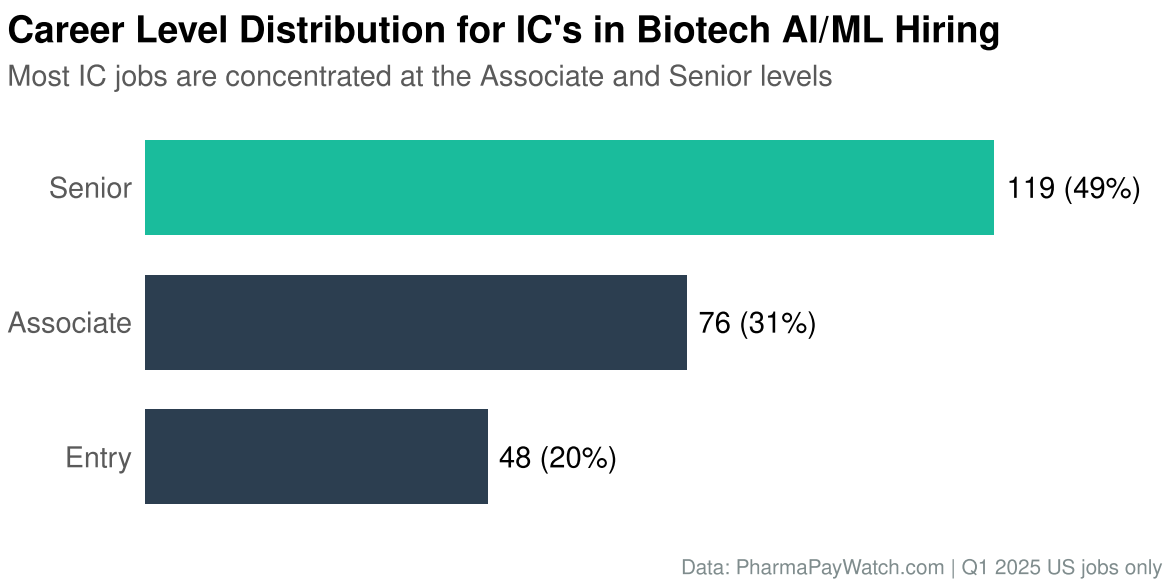


Figure 3. Career Level Distribution for Individual Contributors. Most roles were Senior level and entry level hiring was weakest.

Overall, companies were primarily targeting individual contributor roles with 64% of postings. Broken down by company, hiring trends reflected team-building stage differences.

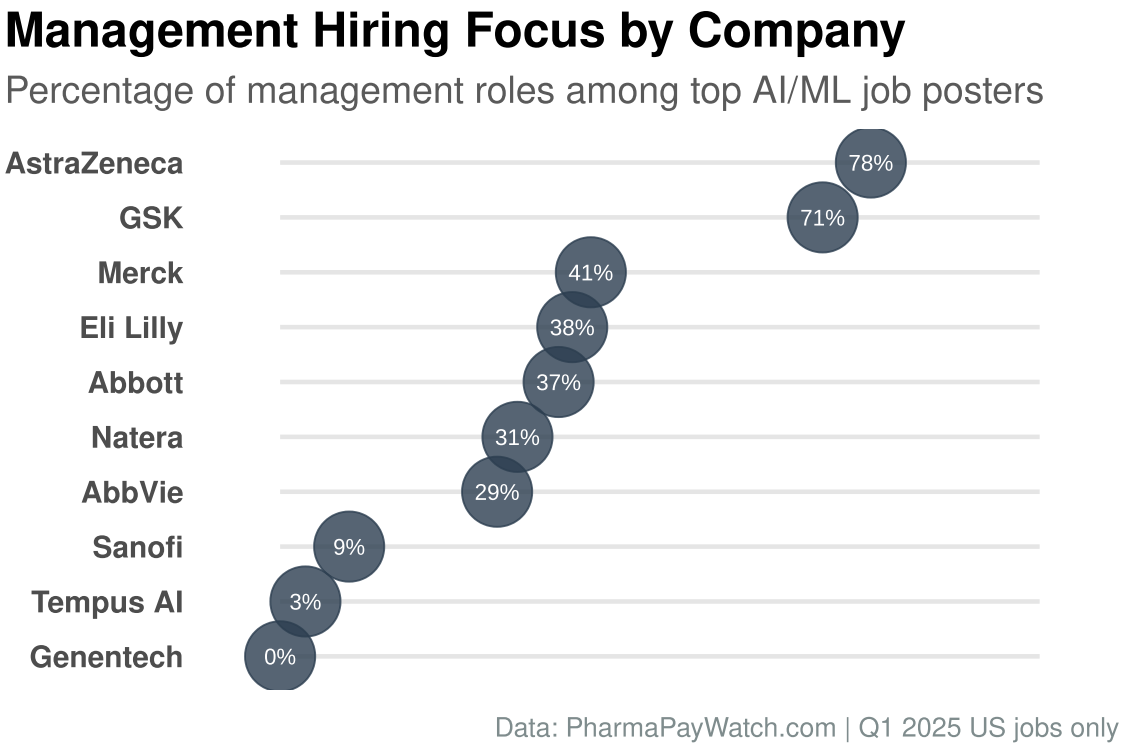


Figure 4. Company management hiring focus. AstraZeneca has posted primarily management-level AI/ML roles, while Tempus AI and Genentech have focused on IC-based roles.

For example, nearly 75% of positions at AstraZeneca were for management roles, while Tempus AI (3%) and Genentech (0%) were primarily individual contributor focused.

This suggests AstraZeneca is building AI/ML leadership infrastructure, while Tempus AI and Genentech are scaling technical execution teams.

4. Role Types and Compensation

AI/ML Engineering roles command the highest median salaries at $189K, followed by Data Science & Analytics at $169K. Clinical & Real-World Data Science positions, despite being one of the most common role types, showed lower median compensation at $150K.

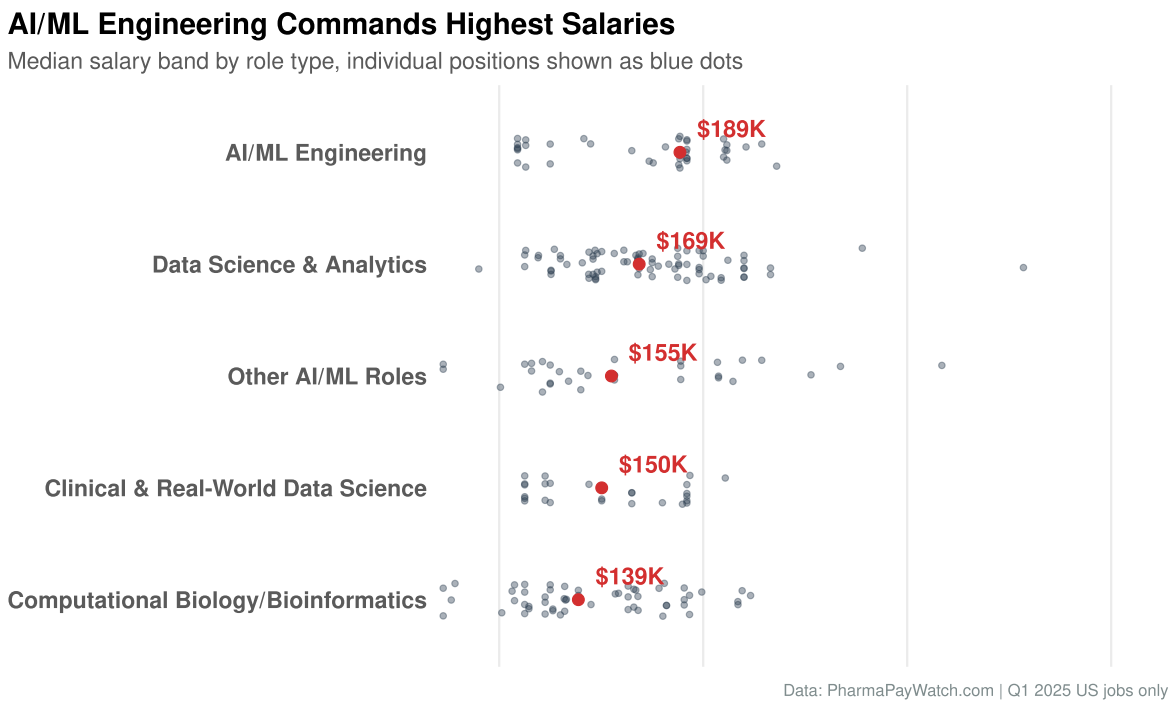


Figure 5. The most popular role categories and compensation ranges. AI/ML engineering roles listed the highest salaries on average, while Biology/Bioinformatics were more tightly clustered.

The salary spread varies significantly by role type. AI/ML Engineering positions show the widest range, with some roles reaching above $300K, reflecting the premium companies place on technical implementation expertise. Computational Biology/Bioinformatics roles cluster more tightly around the $139K median, suggesting more standardized compensation in this established field.

Notably, “Other AI/ML Roles” - a catch-all category including specialized positions like AI Product Management and AI Strategy roles - showed a median of $155K, indicating that even non-traditional AI applications in biotech command competitive salaries.

Methods

This analysis is based on direct monitoring of career pages from 62 biotech and pharmaceutical companies from January 1 to March 31, 2025. Unlike job aggregators that rely on third-party postings, we scrape directly from company career sites every 3-6 hours to capture real-time hiring activity and track when positions are removed.

Job Classification: AI/ML positions were identified through automated keyword matching against job titles and descriptions, followed by manual review to eliminate false positives. We classified 381 unique AI/ML positions across 37 of our 62 monitored companies. The companies that we identified as hiring for AI/ML roles in Q1 were: AstraZeneca, Abbott, Pfizer, Medtronic, Vertex, Sanofi, Verily Life Sciences, HHMI, Novartis, Gilead, Illumina, Caris Life Sciences, Moderna, Generate Biomedicines, Recursion Pharmaceuticals, GSK, Takeda, Valo Health, Tempus AI, Hims and Hers Health, Neurocrine Biosciences, Natera, Amgen, Truveta, Merck, Calico Life Sciences, Eli Lilly, Bristol Myers Squibb, Exact Sciences, BillionToOne, AbbVie, Biogen, Twist Bioscience, Legend Biotech, Sarepta Therapeutics, and Johnson and Johnson.

Role Categorization: Each position was automatically categorized by using keywords then manually reviewed for both experience level (“Senior”, “Associate”) and role type (AI/ML Engineering, Data Science & Analytics, etc.) based on job requirements and title analysis. Management roles were identified by title keywords and span-of-control indicators in job descriptions.

Salary Extraction: Compensation data was automatically extracted from job descriptions using pattern matching algorithms, then manually verified. 76% of positions (288 jobs) included explicit salary ranges. When companies listed salary ranges for the same role across multiple locations, we used the midpoint for analysis.

Geographic Analysis: Job locations were parsed and standardized to city/state level. For positions listing multiple possible locations, we counted each location separately in geographic distribution but as single positions for company totals. Remote and hybrid designations were identified through job description analysis and explicit remote work indicators.

Interested in the Full Report?

The complete AI/ML Biotech Hiring Report includes:

- **Why Abbott doubled its AI/ML hiring**: Analysis of their diagnostics strategy and which specific roles support new product development
- **Tempus AI's multi-city strategy and initiatives**: Geographic hiring patterns and what teams they are building heading into Q2
- **Complete salary benchmarks**: 25th, 50th, and 75th percentile compensation by role type, experience level, and geography
- **AstraZeneca's management-heavy approach**: Why 75% of their AI/ML hires were leadership roles and what this signals about their AI strategy
- **Technical skill breakdown**: Programming languages, frameworks, and domain expertise in highest demand across all companies
- **Quarter over Quarter comparisons**: How hiring patterns are changing moving in Quarter 2
- **Complete dataset**: Excel/CSV file with all salary and role data, plus high-resolution charts for presentations

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For information about purchasing the full report, please visit pharmapaywatch.com/products/ or contact: reports@pharmapaywatch.com