

# Medical Data Annotation Salary Guide (2025): Pharma & Biotech

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## Executive Summary

The role of a **Medical Data Annotation Specialist** – professionals who label, tag, or otherwise “annotate” medical and clinical data for machine learning – has rapidly gained prominence within the pharmaceutical and biotechnology industries. This report provides an in-depth 2025 salary guide for such specialists, drawing on industry surveys, job postings, and labor market analyses. We find that **compensation varies widely** by country, sector, and experience. In the United States, general *Data Annotation Specialists* earn roughly **\$47,800–78,400 per year** on average ([www.salary.com](http://www.salary.com)) ([www.glassdoor.com](http://www.glassdoor.com)) (depending on the survey), whereas in the UK the range is approximately **£25,000–45,000** (≈\$30K–\$53K) ([www.glassdoor.co.uk](http://www.glassdoor.co.uk)). In emerging markets such as India and Malaysia, median salaries are much lower (≈₹300K/year and RM3K–4K/month, respectively) ([www.glassdoor.co.in](http://www.glassdoor.co.in)) ([my.jobstreet.com](http://my.jobstreet.com)). These figures are **partly inflated in pharma/biotech** by specialized domain requirements: industry surveys note that AI or data science roles in pharma command **substantially higher pay** (e.g. mid-career data scientists ~\$148K, senior uncapped) ([pharmapaywatch.com](http://pharmapaywatch.com)) ([www.panda-int.com](http://www.panda-int.com)). Case examples illustrate that specialized clinical roles (e.g. oncology data abstractors) can be contracted around **\$30–50 per hour** ([www.indeed.com](http://www.indeed.com)). Looking ahead, the annotation market is expected to grow rapidly (projected to ₹1.1 billion globally by 2032, ~24% CAGR ([www.clickworker.com](http://www.clickworker.com)) ([labelyourdata.com](http://labelyourdata.com))), driven by broad AI adoption in healthcare. While emerging **AI-assisted labelling** (e.g. GAN-generated masks) may improve efficiency ([labelyourdata.com](http://labelyourdata.com)), human expert annotators remain critical for medical data quality. In summary, medical data annotation specialists can expect **competitive salaries** that reflect both the technical/data-science aspect of the work and the premium for healthcare expertise, with continued strong demand in pharma and biotech sectors.

## Introduction & Background

In modern [drug development](#) and healthcare innovation, **high-quality labeled data** is essential. Whether training a deep learning model to detect tumors in radiology images or parsing electronic health records for real-world evidence, *Medical Data Annotation Specialists* play a foundational role. They “add additional information to an image or record” (labels, bounding boxes, codes, etc.) so machine-learning (ML) systems can learn clinical patterns ([macgence.com](http://macgence.com)). For example, annotators might segment regions of interest in MRI scans or tag pathology reports with disease codes. As one industry blog explains, medical annotation **“makes sure that the data provided to the AI and ML models is of top-notch quality so that accurate and optimized results can be generated.”** ([macgence.com](http://macgence.com)). This task is inherently labor-intensive: healthcare data is often unstructured and complex, and annotation requires both medical domain knowledge and attention to detail ([www.grandviewresearch.com](http://www.grandviewresearch.com)) ([macgence.com](http://macgence.com)).

A major driver for the proliferation of medical annotation is the explosive growth of AI in life sciences. According to market research, the **healthcare data annotation tools market** was about **\$129.9M in 2022** and is forecast to grow ~27.5% annually through 2030 ([www.grandviewresearch.com](http://www.grandviewresearch.com)). By 2032, another analysis projects the **global healthcare/medical annotation market** reaching **\$1.1 billion (23.85% CAGR)** ([www.clickworker.com](http://www.clickworker.com)). In parallel, life-science AI roles are commanding unprecedented salaries: the UK bioinformatics sector saw a ~23% year-on-year increase in wages, with average specialist pay around €106,400 in 2025 ([www.panda-int.com](http://www.panda-int.com)). Indeed, top AI positions at major pharma firms can exceed **€345k–€575k** ([www.panda-int.com](http://www.panda-int.com)). While annotation specialists earn less than senior data scientists, these figures underscore the *premium on AI talent* in biotech.

Within pharma and biotech, annotated clinical data are needed for drug discovery, [clinical trial analysis](#), diagnostics development, and [regulatory compliance](#). Annotation helps turn **unstructured health data** into structured information. For example, annotating imaging datasets can highlight pathological features for diagnostic AI; labeling patient records can enable machine learning in [pharmacovigilance](#); segmenting cell images can accelerate drug target discovery ([www.grandviewresearch.com](http://www.grandviewresearch.com)) ([www.innovatiana.com](http://www.innovatiana.com)). Even regulatory bodies are emphasizing the importance of diverse, high-quality training data. For instance, the FDA's "AI/ML-based [SaMD](#) Action Plan" (2021) highlights the need for robust, well-labeled datasets in medical AI validation ([www.innovatiana.com](http://www.innovatiana.com)).

In practice, medical annotation tasks are handled by specialized personnel – often with life-science backgrounds (e.g. biology, medicine, or nursing) – working either in-house or via dedicated service providers ([macgence.com](http://macgence.com)). These annotators typically use advanced tools for image/video labeling, natural language tagging, and data quality checks. The required **skillset** is broad: proficiency with annotation software and basic programming (e.g. spreadsheets, SQL) is important, but equally vital is *medical domain knowledge* – understanding terminology, anatomy, pathology, etc. ([macgence.com](http://macgence.com)). (A survey of skills lists "general knowledge of common terms, conditions, and procedures used by the medical profession" as a must-have ([macgence.com](http://macgence.com)).) In short, annotators bridge healthcare expertise and machine-learning needs.

Despite its critical role, the **job title** "Medical Data Annotation Specialist" is still somewhat emergent. Companies may also post roles like *Clinical Data Annotator*, *Biomedical Labeling Specialist*, or even *AI Trainer (medical)*. It overlaps with fields such as health information technologists (medical coders) and clinical research data roles. However, it is distinct from pure clinical documentation: the emphasis is on producing ML-ready data under strict quality protocols ([macgence.com](http://macgence.com)). This hybrid nature – part clinical knowledge, part data processing – makes compensation patterns unique, as explored below.

# The Role of a Medical Data Annotation Specialist

Medical Data Annotation Specialists perform a range of tasks depending on the data modality. Common activities include:

- **Image/Video Annotation:** Labeling anatomy or pathology in medical images (X-ray, CT, MRI, ultrasound). Tasks often involve drawing **bounding boxes**, **segmentation masks**, **keypoints**, or other markers to identify features (tumors, organs, lesions) ([macgence.com](#)) ([macgence.com](#)). For instance, an annotator might outline the boundary of a lung nodule on a CT scan or label frames of a surgical video for anatomical landmarks ([www.grandviewresearch.com](#)) ([macgence.com](#)).
- **Text Annotation:** Tagging clinical text (doctor's notes, radiology reports, EHR entries) with relevant labels or codes. This may involve marking disease mentions, medication names, or dosages, and classifying sentences into structured data. For example, annotators might identify all references to adverse events or outcomes in a set of clinical trial reports.
- **Signal and Genomic Data:** Annotating physiological signals (ECG, EEG) or genetic data by marking events or variants of interest. While less common, some roles involve labelling heart rhythms or gene features.
- **Quality Assurance:** Reviewing and validating annotations. Given the high stakes in healthcare, specialists often cross-check each other's work and adhere to rigorous guidelines (e.g. inter-annotator agreement). This may also involve **error analysis** on ML outputs and iterative feedback to improve label consistency.

According to industry sources, a medical annotator must have **both soft and hard skills**. Hard skills include familiarity with annotation tools and some programming literacy; soft skills include extreme attention to detail and grasp of clinical context ([macgence.com](#)) ([macgence.com](#)). As one blog describes, annotators help "ensure that the data provided to AI and ML models is of top-notch quality" ([macgence.com](#)). For instance, a specialist might use Photoshop-like tools or specialized labeling platforms (labeling toolkits, DICOM viewers, etc.) to produce training data.

Importantly, different projects may have **different expertise requirements**. Some annotation tasks require deep specialization. For example, annotating genetic variant pathogenicity might require a background in molecular biology, while labeling ophthalmology images might require ophthalmic knowledge ([macgence.com](#)) ([macgence.com](#)). Others, like general ICD coding of records, may leverage broader medical training. Across roles, however, the **priority is accuracy and consistency**: mislabeling can propagate critical errors into AI systems. Specialists often work under the guidance of clinicians or data scientists and undergo training for specific annotation schemas.

In sum, Medical Data Annotation Specialists occupy a niche between **clinical fields and data science**. They typically operate in multi-disciplinary teams alongside data engineers,

statisticians, and subject-matter experts. This blend of skills means employers (especially in pharma/biotech) often offer compensation above generic data entry or crowdsourcing rates, as discussed below.

## Salary Overview by Region and Sector

Medical annotation roles command salaries that reflect geographic cost-of-living, sector budgets, and required expertise. Below we summarize key data on compensation for annotation-related positions:

- **United States** – Various salary aggregators give a broad range. According to [Salary.com](https://www.salary.com) (August 2025), the **average** annual pay for a *Data Annotation Specialist* in the U.S. is **~\$47,841** ([www.salary.com](https://www.salary.com)) (with 25th–75th percentile roughly \$43,859–\$54,444 ([www.salary.com](https://www.salary.com))). By contrast, Glassdoor’s data (June 2025) reports a **median** total pay of **~\$78,394** for *Data Annotation* roles (i.e. \$59K–\$107K interquartile) ([www.glassdoor.com](https://www.glassdoor.com)). This higher figure likely reflects surveys of more technical positions or full-time roles. The discrepancy suggests that entry-level annotation jobs may indeed be around \$40–50K, while experienced annotators (or roles titled *AI Annotator/Trainer*) can reach well into the high \$70K+ range. For example, Glassdoor’s median for “AI Annotation” in the U.S. is **~\$115K** ([www.glassdoor.com](https://www.glassdoor.com)), implying that highly specialized annotation (often overlapping data science) is valued at a much higher rate.
- **United Kingdom** – Glassdoor UK data show *Data Annotation Specialist* salaries from **£25K to £45K** base (avg **~£33K**) ([www.glassdoor.co.uk](https://www.glassdoor.co.uk)). A related category, *Medical Annotators*, reports an average base pay **~£31K** ([www.glassdoor.co.uk](https://www.glassdoor.co.uk)). These roughly align; at current exchange rates, £30–40K  $\approx$  \$38–50K. Note that in pharma/biotech hubs (London, Cambridge), specialized roles may command higher offers, but national averages suggest mid-level annotation specialists earn around £30–35K/year.
- **India** – Data Annotation Specialist positions in India (e.g. on Glassdoor) show **very low rates** by Western standards: average total compensation about **₹300,000/year** ([www.glassdoor.co.in](https://www.glassdoor.co.in)) (roughly **\$3,600**). Even accounting for purchasing power differences, this reflects the local market for annotation work. Senior or specialized roles may pay more (e.g. ₹5–8L), but entry-level rates are modest. Note that many global pharma companies outsource basic labeling tasks to India (and similar) because of these cost efficiencies.
- **Southeast Asia** – In Malaysia, JobStreet listings for data labelers indicate salary ranges typically **RM2,000–RM4,500/month** ([my.jobstreet.com](https://my.jobstreet.com)) (approximately **\$430–\$970** per month). For example, one posting for an AI Annotator listed **RM3,000–4,200** ([my.jobstreet.com](https://my.jobstreet.com)). Glassdoor for Kuala Lumpur shows a median **~MYR2,000/month** (though with only one data point ([www.glassdoor.com](https://www.glassdoor.com))). In Singapore, Glassdoor has ‘Data Annotation’ roles at **~\$1K–2K SGD** per month (approx **\$800–\$1,600 USD**) ([www.glassdoor.sg](https://www.glassdoor.sg)). Overall, Asian salary levels are significantly lower than Western counterparts, but in high-cost Singapore they are somewhat compressed relative to local living costs.

- Europe (Other)** – Limited data is available. In Germany (Berlin), Glassdoor reports *Data Annotation Specialist* roles at **€16–€18/hour** avg €17/hr ([www.glassdoor.sg](http://www.glassdoor.sg)) (around **€35K–€38K/year** for full-time). This is in the same ballpark as the UK. Other Western Europe (France, Switzerland) likely command somewhat higher pay; for instance, pharma jobs in Switzerland routinely pay well above the US median, though specific annotation data is scarce.
- Remote/Global Roles** – A Glassdoor poll of “Remote Data Annotation Specialist” (global candidates) shows an average base pay of **\$19–\$22/hour** ([www.glassdoor.com.hk](http://www.glassdoor.com.hk)) (≈\$45K/year @ 40h/wk). This suggests that even remote contract annotation gigs (possibly in high-cost markets) average mid-\$40Ks. The implication is that **location norms** remain influential even for remote work.

To illustrate these variances, Table 1 below compiles representative salary figures by role and region:

Region/Country	Role/Title (Example)	Compensation	Source
United States (US)	Data Annotation Specialist	<b>\$47,841</b> annual avg ( <a href="http://Salary.com">Salary.com</a> ) ( <a href="http://www.salary.com">www.salary.com</a> )	<a href="http://Salary.com">Salary.com</a> (Aug 2025)
	Data Annotation (Glassdoor median)	<b>\$78,394</b> median annual (range \$59K–\$107K) ( <a href="http://www.glassdoor.com">www.glassdoor.com</a> )	Glassdoor (Jul 2025)
	AI Annotation (Glassdoor avg)	<b>\$115,315</b> annual (avg) ( <a href="http://www.glassdoor.com">www.glassdoor.com</a> )	Glassdoor (Jul 2025)
United Kingdom (UK)	Data Annotation Specialist	<b>£25K–£45K</b> base, avg ~£33K/year ( <a href="http://www.glassdoor.co.uk">www.glassdoor.co.uk</a> )	Glassdoor (2025)
	Medical Annotator	<b>£22K–£44K</b> base, avg £31K/year ( <a href="http://www.glassdoor.co.uk">www.glassdoor.co.uk</a> )	Glassdoor (2025)
India	Data Annotation Specialist	<b>₹300,000</b> annual avg (≈\$3,600) ( <a href="http://www.glassdoor.co.in">www.glassdoor.co.in</a> )	Glassdoor India (2025)
Malaysia	Data Labeler (AI Annotator)	<b>RM3,000–4,200</b> per month ( <a href="http://my.jobstreet.com">my.jobstreet.com</a> ) (≈\$650–\$900/month)	JobStreet Malaysia (Jul 2025)
Singapore	Data Annotation Specialist	<b>SGD1,000–2,000</b> per month ( <a href="http://www.glassdoor.sg">www.glassdoor.sg</a> ) (≈\$800–\$1,600)	Glassdoor SG (2025)
Germany (Berlin)	Data Annotation Specialist	<b>€16–€18</b> per hour (avg €17/hr) ( <a href="http://www.glassdoor.sg">www.glassdoor.sg</a> ) (≈€35K/yr)	Glassdoor (2025)
Remote (Global)	Data Annotation Specialist	<b>\$19–\$22</b> per hour avg ( <a href="http://www.glassdoor.com.hk">www.glassdoor.com.hk</a> ) (≈\$45K/yr)	Glassdoor (2025)

*Table 1: Illustrative salary benchmarks for data/medical annotation roles in 2025 (converted to local currencies). Although titled roles vary (e.g. “Data Annotation Specialist” vs. “Medical Annotator”), these figures indicate the general compensation level for annotation work. Sources: salary aggregators and job postings ([www.salary.com](http://www.salary.com)) ([www.glassdoor.com](http://www.glassdoor.com)) ([www.glassdoor.co.uk](http://www.glassdoor.co.uk)) ([www.glassdoor.co.uk](http://www.glassdoor.co.uk)) ([www.glassdoor.co.in](http://www.glassdoor.co.in)) ([my.jobstreet.com](http://my.jobstreet.com)) ([www.glassdoor.sg](http://www.glassdoor.sg)) ([www.glassdoor.com.hk](http://www.glassdoor.com.hk)).*

From Table 1, several trends emerge:

- **Higher pay in developed markets:** US and Western Europe offer the highest salaries (mid-\$40Ks to high-\$70Ks). Note that the [salary.com](#) figure (\$47K) probably reflects entry-level or average positions, whereas Glassdoor's higher median (\$78K) suggests experienced annotators or tech-focused roles. In countries like India/Malaysia, pay is vastly lower in absolute terms, though so are living costs.
- **Premium for expertise:** Within the US/UK, roles explicitly tied to AI or medical expertise pay more. For example, Glassdoor's "AI Annotation" role averaged **\$115K** ([www.glassdoor.com](#)), far above the generic annotation average. Similarly, specialized clinical abstractors (e.g. oncology registry coders) advertise ~\$30–50/hr ([www.indeed.com](#)) ([www.indeed.com](#)), equivalent to \$62K–\$104K full-time, reflecting nursing/coding expertise.
- **Industry effect:** These wages generally *exceed typical crowdwork rates*. For perspective, a meta-analysis found that microtask workers (e.g. on Mechanical Turk) average **under \$6/hour** ([pmc.ncbi.nlm.nih.gov](#)). Professional annotation specialists are paid many times more – on par with skilled tech or administrative jobs – because of the specialized skill set in healthcare.
- **Comparisons to data science:** It is instructive to contrast with salaries for related roles. In pharma/biotech, *data scientists* commonly command median salaries in the **six figures**. For instance, recent industry salary surveys report median senior data scientist pay around **\$176K** (biotech/pharma sector) ([pharmapaywatch.com](#)), with even higher management rates (~\$197K) ([pharmapaywatch.com](#)). Clearly, annotation specialists earn less than these top-tier AI roles, but the gap narrows for highly technical annotation (as suggested by the \$115K figure above). In a heavily capitalized sector like pharma, even data-heavy supporting roles are relatively well-compensated, especially as demand grows.

## Case Examples and Real-world Context

While public data on specific companies' annotation salaries is sparse, real-world postings and industry insights shed light on market practice:

- **Contract roles and postings:** [Indeed.com](#) lists thousands of "Medical Data Annotation" jobs as of late 2025. Many are part-time or contract roles. For instance, a Maryland-based cancer center (MedStar Health) advertised a **Senior Oncology Data Abstractor (PRN)** role at **\$30.42–\$50.69/hr** ([www.indeed.com](#)). A remote *Certified Oncology Data Specialist* role was offered at **from \$28/hr** ([www.indeed.com](#)). These examples illustrate that even as contractors, medical coders/annotators often see pay in the **\$60K–\$100K** equivalent range, corresponding to specialized data responsibilities. (By comparison, typical entry-level data entry might be ~\$15/hr; oncology-specific expertise commands a significant premium.)
- **Startup and provider salaries:** Emerging AI health companies also hire annotators. While exact figures are not publicly posted, anecdotal reports suggest that life-science startups often pay competitive wages to attract candidates with both clinical and technical skills. The large *Pharma/Medical Device* recruitment firm Panda lists "AI jobs in life sciences" and notes that salaries for AI specialists in biotech have jumped (e.g. ~30–50% above traditional counterparts) ([www.panda-int.com](#)). Although this mainly covers PhDs and engineers, it hints that annotation roles in such companies might similarly see elevated pay.

- **Outsourcing agencies:** Many pharma firms use third-party vendors for annotation (e.g. Macgence, Lionbridge Health, or specialized CROs). These vendors assign projects to annotators often via global hubs or freelance platforms. While gig platforms pay very little on average ([pmc.ncbi.nlm.nih.gov](http://pmc.ncbi.nlm.nih.gov)), professional vendors charge industry rates. Publicly, vendors emphasize quality and compliance; we infer that their annotators receive relatively high compensation internally, though exact figures are proprietary.
- **Geographic distribution:** As Table 1 shows, annotation work in pharma is globally distributed. A post-COVID trend is more *remote* work: some companies allow annotators to work from anywhere (hence the \$22/hr remote rate on Glassdoor ([www.glassdoor.com.hk](http://www.glassdoor.com.hk))). However, many annotation jobs still require physical access to secure data (e.g. annotating EHR records may require on-site or VPN access to hospital systems). Accordingly, some pharmaceutical offices have small annotation teams on staff. For example, a major pharma or hospital system in the US might employ a handful of in-house annotators with salaries on the high end of the (\$50K–\$70K) scale for stability and confidentiality.

Overall, **case studies and postings confirm:** medical annotation is a valued expertise in modern Pharma/Biotech, bridging clinical and data worlds. Employers pay on par with technical healthcare roles, not just entry-level labor rates. Specialists with advanced training (e.g. clinical certifications, advanced degrees) can command pay at the upper ends noted above.

## Detailed Salary Analysis

### US Salary Distribution

Within the US, salary variation is influenced by location, company size, and specialization. [Salary.com](http://Salary.com) breaks down data annotation salaries by state: for example, California and Massachusetts (with high tech demand) show averages around **\$52K** ([www.salary.com](http://www.salary.com)), while cities like San Francisco lead at nearly **\$59,750** and New York at **\$55,443** ([www.salary.com](http://www.salary.com)). These figures align with Glasdoor's high-end data. Conversely, parts of the Midwest or rural areas likely pay on the low end (\$40–45K). Thus, a medical annotator in Silicon Valley might earn ~1.4x a colleague in an average-cost area.

Experience matters too. Entry-level annotators (e.g. recent graduates) likely earn near the lower quartiles (\$40K–\$50K). According to Glassdoor, 25th percentile is about **\$58,800** ([www.glassdoor.com](http://www.glassdoor.com)) (for all "Data Annotation"), but this may include some mid-skill roles. By contrast, a senior annotation specialist (with years of clinical experience) could be near the upper quartile (\$100K+). Indeed, the Glassdoor range suggests the top 25% earn > \$107K ([www.glassdoor.com](http://www.glassdoor.com)).

We illustrate this with Table 2 for the US:

Experience Level	Estimated US Salary (annual)	Notes/Source
Entry-level (0–2 yrs)	~\$40,000–\$50,000	Entry Data Annotator ( <a href="https://www.salary.com">Salary.com</a> median ~\$47K) ( <a href="https://www.salary.com">www.salary.com</a> )
Mid-career Analyst (3–5 yrs)	~\$55,000–\$80,000	Glassdoor 25th–75th percentiles ( <a href="https://www.glassdoor.com">www.glassdoor.com</a> ), or data labeler avg \$46K ( <a href="https://www.glassdoor.sg">www.glassdoor.sg</a> ) with experience
Senior Specialist (>5 yrs)	~\$80,000–\$110,000+	Glassdoor top quartile \$107K ( <a href="https://www.glassdoor.com">www.glassdoor.com</a> ); specialized project roles often ~\$100K+
Management/Team Lead	~\$120,000+ (often plus bonus)	By analogy: Data Science mgmt ~33% above IC ( <a href="https://pharmapaywatch.com">pharmapaywatch.com</a> ); implies \$120K–\$150K

Table 2: U.S. salary estimates for annotation-related roles by experience. These ranges are approximate, derived from salary survey percentiles ([www.salary.com](https://www.salary.com)) ([www.glassdoor.com](https://www.glassdoor.com)) and analogous industry data.

In bio/pharma industries, it is not uncommon for annotation specialists to transition into higher-level analytics roles (e.g. clinical data manager, data scientist) over time, which shifts their pay closer to the data science scale ([pharmapaywatch.com](https://pharmapaywatch.com)). But for a specialist role, the focus is on labeling work itself.

## Benefits and Compensation Packages

Total compensation may include standard benefits. In Pharma/Biotech these often include health insurance, retirement contributions, and performance bonuses. [Salary.com](https://www.salary.com) notes that national average *bonuses and incentives* for annotation specialists are low or modest ([www.salary.com](https://www.salary.com)) (graphical data). However, larger pharmaceutical companies may offer stock options or robust bonuses even for non-scientist roles, slightly boosting totals. For example, *entry-level Clinical Data Coordinators* at big pharma might see ~\$5K–\$10K bonus potential. Such perks are rarely detailed in aggregated salary sites but are part of the overall compensation ethos in life sciences.

## International Comparisons

Beyond numeric comparisons, cultural/industry factors play a role. In the **US and Europe**, data annotation is increasingly recognized as a skilled profession within AI project budgets ([www.clickworker.com](https://www.clickworker.com)) ([pharmapaywatch.com](https://pharmapaywatch.com)). Thus, salaries are comparable to other tech-adjacent occupations. In **emerging markets**, annotation is often outsourced at contract rates; local salaries mirror lower living costs. For example, \$6/hour crowdworkers are the baseline globally ([pmc.ncbi.nlm.nih.gov](https://pmc.ncbi.nlm.nih.gov)), but certified annotators in India or Southeast Asia working for global contracts might earn several times that (e.g. ~\$5/hr is typical median on labor platforms, but experienced annotators might get \$8–10/hr).

A notable international aspect is **offshoring**. Many US/European pharma companies will have domestic corporate rate cards for annotation (e.g. \$35–\$50/hr for a contractor) but may then

subcontract that work to overseas vendors at much lower effective costs. This has implications: on-shore specialists see high hourly rates and project-based pay, while overseas workers do bulk annotation at lower wages. The net effect is that **country-of-hire, not just role**, often determines pay.

## Industry and Company Factors

Within pharma/biotech, large companies with hefty R&D budgets (e.g. Johnson & Johnson, Roche/Genentech, Novartis) tend to pay at the higher end of these ranges, especially in major hubs. Industry salary trackers note, for example, that **Eli Lilly** and **Genentech** offered median data science salaries of ~\$204K and \$175K, respectively ([pharmapaywatch.com](https://pharmapaywatch.com)), indicating the ability to pay top dollar. Smaller biotech firms or startups may offer equity or varied packages and might pay annotation roles slightly less (or rely on outsourcing). Contract research organizations (CROs) that serve pharma will have their own pay scales which often align with local industry standards.

It is also worth noting that **academic research positions** might use the term “data curator” or “data manager” instead of annotator. Such roles in non-profit settings typically pay less (often at or below industry medians) and can serve as entry points into annotation careers. We focus here on industry salaries, which set the competitive benchmark.

## Implications and Future Directions

The demand for medical annotation is expected to remain **robust** in the foreseeable future. Experts consistently predict significant growth in this field. One market analysis states “yes, there is a promising future in data annotation... it is fundamental to training machine learning models and the development of AI” ([labelyourdata.com](https://labelyourdata.com)), emphasizing that continued AI adoption across industries (especially in healthcare) will drive annotation needs. The charts of the data annotation market show *explosive projected growth* (CAGR 33.2% through 2027 ([labelyourdata.com](https://labelyourdata.com)) for all annotation, and 27–24% for healthcare specifically ([www.grandviewresearch.com](https://www.grandviewresearch.com)) ([www.clickworker.com](https://www.clickworker.com))).

Concurrently, automation will influence the labor landscape. **AI-assisted labeling tools** are maturing. For example, companies are introducing annotation platforms that leverage machine learning to pre-label data: bounding-box suggestions by object-detection models, or auto-segmentation of medical images ([www.grandviewresearch.com](https://www.grandviewresearch.com)) ([labelyourdata.com](https://labelyourdata.com)). Such tools (e.g. auto-annotation in Google’s Medical Imaging Suite ([www.grandviewresearch.com](https://www.grandviewresearch.com))) can **increase annotator productivity by several-fold**. Generative models, like GANs, are even being trained to autonomously create annotation masks ([labelyourdata.com](https://labelyourdata.com)). Over time, these technologies may **reduce the proportion of manual effort**, especially for routine tasks.

However, rather than eliminating jobs, automation likely **augments** them. Most experts agree that human oversight remains critical in medical contexts ([www.grandviewresearch.com](http://www.grandviewresearch.com)) ([labelyourdata.com](http://labelyourdata.com)). Automated pre-annotation must be reviewed by domain experts to catch clinical edge-cases and biases. In fact, some predictions suggest that as AI becomes more pervasive, the **need for high-quality labeled data will actually increase**. More AI projects means more data to label (even if partially automated), and regulators will demand stringent evidence of data quality ([www.innovatiana.com](http://www.innovatiana.com)). Therefore, **Medical Data Annotation Specialists** will continue to be crucial, potentially with evolving job descriptions (e.g. "AI Data Labeling Engineer" or similar).

From a compensation standpoint, this suggests **upward pressure on salaries** over time. The supply of qualified annotators – with both programming tool skills and medical knowledge – will not grow as fast as demand. As a result, employers may be willing to pay more to secure talent. We are already seeing early indicators of this in related fields: for example, even entry-level "AI Trainer" or "Data Scientist" roles in healthcare have seen significant salary jumps year-over-year ([www.panda-int.com](http://www.panda-int.com)). It is plausible that median annotation specialist salaries may rise beyond inflation in coming years, especially in competitive biotech hubs.

Geopolitically, trends such as *onsite confidentiality requirements* may also affect pay. Post-pandemic, some life-sciences companies prefer annotators onsite for sensitive data, meaning salaries must match local labor rates. Thus, annotation roles in Cambridge (MA), Basel, or Tokyo will pay at least as well as other local professionals, if not more.

In summary, **future outlook**: The market for medical data annotation is expanding quickly. While emerging AI tools will change workflows, the role of a skilled human annotator remains indispensable for now. Salaries in pharma/biotech for these specialists should remain **competitive or increasing**, reflecting the high value of clean data.

## Conclusion

Medical Data Annotation Specialists occupy a pivotal niche in the modern pharma/biotech ecosystem, at the intersection of healthcare expertise and data science. This comprehensive salary analysis shows that in 2025 such professionals typically earn **mid-five-figure to six-figure salaries**, varying widely by experience, location, and employer. In the United States, averages range roughly from \$47K (entry level) to \$78K (experienced), with some advanced roles approaching or exceeding \$100K ([www.salary.com](http://www.salary.com)) ([www.glassdoor.com](http://www.glassdoor.com)). In Europe, UK specialists see ~£25K–£45K ([www.glassdoor.co.uk](http://www.glassdoor.co.uk)), while in Asia salaries are lower. Crucially, annotation specialists often earn more than generic data-entry positions because of their domain skills; they serve critical roles in high-stakes projects, which commands higher pay.

Our findings are drawn from multiple sources: government and industry reports on hiring trends ([www.pharmaceutical-technology.com](http://www.pharmaceutical-technology.com)), market research and salary surveys ([pharmapaywatch.com](http://pharmapaywatch.com)) ([www.panda-int.com](http://www.panda-int.com)) ([www.glassdoor.co.in](http://www.glassdoor.co.in)), and thousands of self-

reported salaries ([www.salary.com](http://www.salary.com)) ([www.glassdoor.co.uk](http://www.glassdoor.co.uk)). Where direct data on “medical” annotation is lacking, we have used analogous roles and markets (e.g. general data annotators, data labelers, cannabis), linking findings with citations. This aligns with similar compensation trends in related AI roles: pharma consistently leads on salary. We note that major companies like Eli Lilly, Genentech, and others exhibit median data science pays well above the tech sector norm ([pharmapaywatch.com](http://pharmapaywatch.com)), suggesting that annotation work for them would also be valued highly.

Looking ahead, all indicators (market forecasts, hiring data) suggest strong demand for annotated healthcare data ([labelyourdata.com](http://labelyourdata.com)) ([www.pharmaceutical-technology.com](http://www.pharmaceutical-technology.com)). Advances in AI tooling may shift the nature of the work but not eliminate the need for humans. Thus, medical annotators should expect **sustained or rising compensation**. Finally, as the industry matures, clearer titles and career pathways are emerging (e.g. “Clinical Data Scientist”, “AI Trainer”). This evolution may further professionalize the field and potentially drive wage increases to align more with data science roles.

**References:** This report has cited a wide range of credible sources, including industry salary aggregators, published market reports, and academic reviews, to ensure accuracy and context. All salary figures and market data are drawn from up-to-date (2023–2025) publications and job market analyses ([www.salary.com](http://www.salary.com)) ([pharmapaywatch.com](http://pharmapaywatch.com)) ([www.grandviewresearch.com](http://www.grandviewresearch.com)) ([www.clickworker.com](http://www.clickworker.com)) ([pmc.ncbi.nlm.nih.gov](http://pmc.ncbi.nlm.nih.gov)) ([www.pharmaceutical-technology.com](http://www.pharmaceutical-technology.com)). Claims in the text are backed by these references, as indicated.

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**Custom ERP Development:** Design and develop pharmaceutical-specific ERP systems, inventory management solutions, and regulatory compliance platforms.

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**AI Consulting & Training:** Comprehensive AI strategy development, team training programs, and implementation guidance for pharmaceutical organizations adopting AI technologies.

Contact founder Adrien Laurent and team at <https://intuitionlabs.ai/contact> for a consultation.

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