

Novartis Bets \$12 Billion on Avidity Biosciences to Pioneer Muscle-Targeted RNA Therapies

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“Avidity’s pioneering AOC platform and late-stage assets bolster our commitment to delivering targeted, potentially first-in-class medicines for devastating neuromuscular diseases. We look forward to developing their programs to meaningfully change the trajectory of diseases for patients.” – Vas Narasimhan, CEO of Novartis

Deal Overview

- Acquiror: Novartis (SWX:NOVN)
- Target: Avidity Biosciences (NASDAQ:RNA)
- Industry: Biopharmaceuticals
- Transaction amount: \$12bn
- Announcement date: 26th October 2025
- Advisors to Novartis: Gordon Dyal & Co.
- Advisors to Avidity: Goldman Sachs, Barclays

Deal Summary

In a bold move to enhance its neuroscience and rare disease portfolio, Swiss pharmaceuticals giant Novartis announced on 26th October 2025 that it will acquire US-based Avidity Biosciences for approximately \$12bn. The transaction marks the company’s largest acquisition in over a decade and

the biggest under CEO Vas Narasimhan’s tenure. Under the terms of the deal, Novartis will pay \$72.00 per share in cash, representing a 46% premium to Avidity’s last day closing price. Before the closing, expected in the first half of 2026, Avidity will spin off its early-stage cardiology programs into a separate entity (“SpinCo”), which is excluded from the deal.

Through the acquisition, Novartis will gain Avidity’s late-stage RNA pipeline for rare neuromuscular diseases, along with its proprietary Antibody Oligonucleotide Conjugate (AOC) platform. This platform is designed to deliver RNA-based medicines directly into muscle tissue – addressing a key delivery challenge in the field – and complements Novartis’ existing gene therapy and RNA portfolio. Management views the deal both as a near-term opportunity for product launches before 2030 and a long-term investment in a scalable platform with multi-billion-dollar potential. The transaction reflects a significant bet by Novartis to lead in precision RNA therapy and drive the next phase of growth in its neuroscience segment.

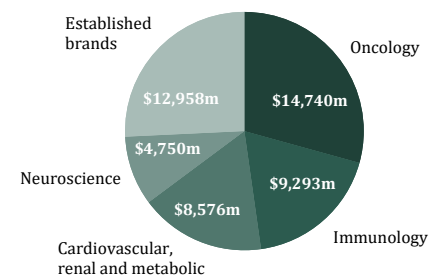
Acquiror Overview – Novartis

Headquartered in Basel, Switzerland, and founded in 1996, Novartis (SWX:NOVN) is one of the world’s largest pharmaceutical companies, with a market capitalization of approximately \$260bn as of early November 2025. The company specializes in innovative patented medicines across 4 core therapeutic areas: oncology; immunology; cardiovascular, renal and metabolic; and neuroscience. Additionally, Novartis reports revenue from a separate “Established brands” segment, which includes legacy therapies such as Diovan, Exforge, and Galvus. While no longer part of the company’s four core therapeutic areas, these off-patent or mature products continue to generate

material cash flows and support broader investment in pipeline innovation (see Figure 1).

In 2024, Novartis achieved net sales of \$50.3bn, which marks a 11% year-over-year (YoY) increase. Net income amounted to \$11.9bn (+39% YoY). Sales were primarily concentrated in the US (42%) and Europe (31%).

Figure 1: Novartis’ Sales Split



Source: Novartis’ Annual Report 2024 – own depiction

In recent years, Novartis has focused on streamlining its core pharmaceuticals business, as demonstrated by the spin-off of its generic drugs division (Sandoz) in 2023. Additionally, the company faces several upcoming patent expiries for key products (e.g. heart-failure drug Entresto, asthma biologic Xolair, and immunology drug Cosentyx), and it has responded by proactively striking deals to replenish its pipeline. In 2025 alone, prior to the Avidity announcement, Novartis agreed to acquire Anthos Therapeutics for \$3.1bn (to boost its cardiovascular portfolio) and Regulus Therapeutics for \$1.7bn (adding an RNA-based kidney disorder therapy). It also inked collaborations such as a partnership with Matchpoint Therapeutics (worth up to \$1bn) to develop new inflammatory disease drugs.

Within its neuroscience segment, Novartis is actively advancing treatments for multiple sclerosis (MS),

neurodevelopmental, and neuromuscular disorders. The segment accounted for \$4.8bn of 2024 sales (+30% YoY) and is viewed as a strategic pillar for future growth. Key assets include the MS therapy Kesimpta and investigational therapies in gene and RNA medicine. Recent setbacks, such as the discontinuation of branaplam and challenges in Huntington’s disease, have heightened the need for external innovation. The Avidity acquisition reflects a decisive step to reinforce Novartis’ neuroscience pipeline and expand its capabilities in RNA-based neuromuscular therapies.

Target Overview – Avidity Biosciences

Founded in 2012 and headquartered in San Diego, California, Avidity Biosciences (NASDAQ:RNA) is a clinical-stage biotechnology company pioneering a new class of RNA-based medicines known as Antibody Oligonucleotide Conjugates. The company went public in 2020 and had a market capitalization of approximately \$6.7bn prior to the Novartis acquisition announcement. With no approved products, Avidity remains pre-revenue and funds operations through equity financing and collaborations. As of mid-2025, it reported a cash runway into 2027, supported by strong investor interest following positive trial data.

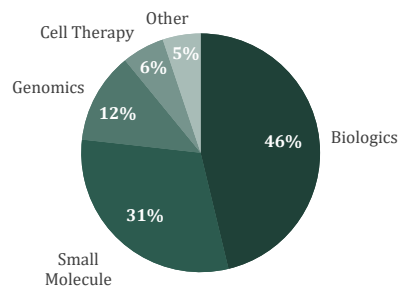
The company’s core technology is its AOC platform, which overcomes a key limitation of traditional RNA-based therapies: delivery beyond the liver. While RNA medicines can block or modify disease-causing genes, they typically accumulate in the liver, limiting their effectiveness in muscle or other tissues. AOCs chemically link RNA molecules to antibodies that guide them into muscle cells, enabling targeted delivery and expanding RNA’s therapeutic reach. Avidity was the first to demonstrate this in humans, a milestone validating its platform and differentiating it from other RNA biotechs.

Avidity’s three lead programs apply the AOC platform to rare neuromuscular diseases with no approved disease-modifying therapies. The most advanced candidate, *del-desiran*, targets myotonic dystrophy type 1 (DM1), a progressive genetic condition. Additional programs are in development for Duchenne muscular dystrophy (DMD) and facioscapulohumeral muscular dystrophy (FSHD). All three programs are in late-stage clinical trials and are expected to seek regulatory approval by 2026. Avidity’s share price had risen 58% year-to-date before the deal, reflecting confidence in its platform and clinical momentum.

Industry Overview – Biopharmaceuticals

The global biopharmaceutical market reached roughly \$470bn in 2024 and is expected to grow above \$1tn by 2030, driven by novel therapies, aging populations, and increased healthcare access globally. In 2024, biopharma companies continued to benefit from steady capital inflows, with \$26bn in venture investments and \$171bn in announced licensing deals. From that, Biologics, including conjugates like Avidity’s AOC platform, attracted the most investor interest (see Figure 2).

Figure 2: Biopharma Investment by Platform



Source: J.P. Morgan 2024 Biopharma Insights – own depiction

While robust funding reflects continued investor confidence in biopharma innovation, it also underscores urgency. With a steep patent cliff approaching, Boston Consulting Group estimates that approximately \$350bn in branded drug sales will lose exclusivity by 2030. To counteract this revenue threat, large-cap pharmaceutical firms have turned to external innovation: in-licensing and M&A. While J.P. Morgan reports an overall decline in biopharma M&A volume in 2024, median deal sizes rose, indicating buyer appetite for high-value, clinically advanced assets.

Another defining shift is the biopharma pivot toward rare and underserved diseases. Rare disease treatments, particularly for genetic conditions, face high unmet need and are often granted pricing flexibility due to limited alternatives and the potential for significant clinical impact. Consequently, about one-third of the global drug development pipeline now targets rare diseases. Within this context, neuroscience has regained strategic importance. Recent activity includes Sanofi’s acquisition of Vigil Neuroscience and Eli Lilly’s continued investments in neurodegeneration. These moves reflect a broader industry recognition that advances in RNA and gene therapies are unlocking targets previously deemed untreatable in neurology.

Novartis’ acquisition of Avidity Biosciences aligns directly with these structural trends. Amid upcoming loss of exclusivity on multiple blockbuster drugs, Novartis is strategically repositioning around differentiated RNA and rare disease assets, underscoring the wider biopharma shift toward specialty-focused growth.

Deal Structure

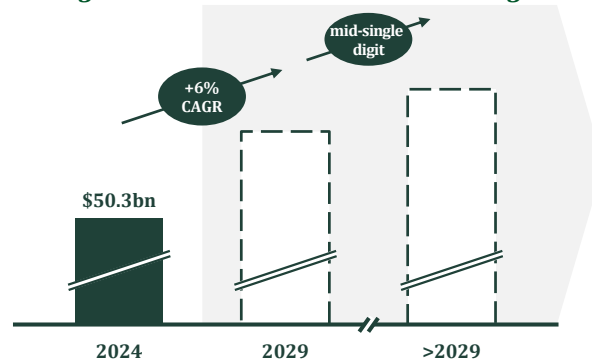
The acquisition is structured as an all-cash merger, with Novartis forming a new indirect wholly owned subsidiary to merge with Avidity and acquire 100% of its outstanding shares. Under the agreed terms, Novartis will pay \$72.00 per share in cash at closing, representing a 46% premium to Avidity's closing stock price of \$49.15 on the last trading day before the announcement (24th October 2025). The offer values Avidity at approximately \$12bn on a fully diluted basis.

A key feature of the transaction is the pre-closing spin-off of Avidity's early-stage cardiology assets into a separate entity ("SpinCo"). This new company will hold development programs and associated partnerships with Bristol Myers Squibb and Eli Lilly. SpinCo will be capitalized with approximately \$270m in cash and led by current Avidity program leadership. In addition to the \$72.00 per share, Avidity shareholders will receive one share of SpinCo for every 10 Avidity shares held, or a cash equivalent if SpinCo is sold before closing. This structure preserves shareholder upside in the cardiology portfolio while allowing Novartis to focus on Avidity's neuromuscular pipeline and AOC platform. The spin-off likely also avoids contractual transfer restrictions, such as a "right of first negotiation" held by existing partners.

The deal is subject to standard closing conditions, including regulatory clearance and Avidity shareholder approval. Upon expected closing in the first half of 2026, Avidity's operations (excluding SpinCo) will be integrated into Novartis' R&D organization. Novartis expects the transaction to raise its 2024-2029 sales CAGR from +5% to +6% and reinforce mid-single-digit growth beyond 2029 (see Figure 3). It projects multi-billion-dollar peak

sales from Avidity's lead programs, supported by patent protection extending beyond 2042.

Figure 3: Novartis' Raised Growth Targets



Source: Novartis Investor Presentation (27th October 2025)
- own depiction

Potential Risks & Upsides

The acquisition of Avidity Biosciences carries significant potential rewards for Novartis, but also notable risks given the clinical-stage nature of Avidity's assets. Avidity is a pre-revenue biotech with no approved therapies, and its lead programs, while already in late-stage clinical trials, have yet to demonstrate success in those pivotal studies. The most advanced candidate, *del-desiran* for myotonic dystrophy type 1 (DM1), must demonstrate functional improvements in a disease where no prior therapy has succeeded. In 2022, an early-stage trial for *del-desiran* was placed on regulatory hold after some patients experienced potential side effects. Although the hold was lifted in 2024, it highlights the safety and delivery challenges inherent to experimental RNA-antibody therapies. Even with positive efficacy data, regulators may apply heightened scrutiny to these first-in-class therapeutics, adding approval and commercialization risk.

If successful, however, Novartis could secure first-mover status in multiple high-need, low-competition markets. DM1 affects roughly 80,000 patients in the US and EU but lacks any approved therapy, positioning a potential treatment for strong orphan pricing and exclusivity. In its investor call, Novartis highlighted that Avidity's lead programs are expected to maintain exclusivity beyond 2042 and remain exempt from US price negotiations under the Inflation Reduction Act. These features position the assets as long-duration revenue drivers that could help offset upcoming losses from major patent expiries.

Strategically, the transaction also deepens Novartis' US footprint. Amid ongoing trade tensions and the continued threat of tariffs on Swiss pharmaceutical exports, the \$12bn acquisition of a California-based biotech signals a firm commitment to the US market. This builds on Novartis' previously pledged \$23bn in US manufacturing and R&D investment. As global peers like Roche and Eli Lilly expand their US operations, Avidity gives Novartis additional political and industrial positioning should US-centric supply chains or regulatory preferences intensify.

In conclusion, the Novartis-Avidity deal represents a concentrated bet on potentially first-in-class medicines with high strategic payoff potential. If Avidity's lead programs succeed, Novartis will gain a differentiated therapeutic platform with durable exclusivity and blockbuster potential in underserved diseases. If they fail, it will be an expensive misstep in an increasingly competitive innovation race that illustrates the high-stakes risk-reward calculus of modern pharma.