

## MediciNova, Inc.

(MNOV-NASDAQ)

### **MNOV: Genzyme Patent Litigation Could Lead to Significant Payout...**

Based on our probability adjusted DCF model that takes into account potential future revenues from MN-166 in ALS, progressive MS, addiction, and as an MCM; and MN-001 in NASH, MNOV is valued at \$27.00/share. This model is highly dependent upon continued clinical success of the company's assets and will be adjusted accordingly based upon future clinical results.

Current Price (04/06/22) **\$2.72**  
Valuation **\$27.00**

### OUTLOOK

On April 5, 2022, MediciNova, Inc. (MNOV) filed an 8-K that described a lawsuit being pursued by Genzyme Corp. against Novartis that includes a claim of infringement of U.S Patent No. 9,051,542. This patent, along with others, was included in the Assignment Agreement between Genzyme and Avigen, Inc. (which MediciNova acquired in 2009). The plaintiffs allege that the manufacture, use, and sale of adeno-associated virus (AAV) vectors for the gene therapy Zolgensma<sup>®</sup> infringes certain U.S. patents, including the one mentioned above. Were Genzyme to receive any monetary damages as a result of the litigation, MediciNova would be entitled to receive a certain portion of them per the terms of the Assignment Agreement.

### SUMMARY DATA

52-Week High **\$5.14**  
52-Week Low **\$2.19**  
One-Year Return (%) **-46.24**  
Beta **1.25**  
Average Daily Volume (sh) **41,004**

Shares Outstanding (mil) **49**  
Market Capitalization (\$mil) **\$133**  
Short Interest Ratio (days) **N/A**  
Institutional Ownership (%) **16**  
Insider Ownership (%) **16**

Annual Cash Dividend **\$0.00**  
Dividend Yield (%) **0.00**

5-Yr. Historical Growth Rates  
Sales (%) **N/A**  
Earnings Per Share (%) **N/A**  
Dividend (%) **N/A**

P/E using TTM EPS **N/A**  
P/E using 2018 Estimate **N/A**  
P/E using 2019 Estimate **N/A**

Risk Level **Above Avg.**  
Type of Stock **Small-Value**  
Industry **Med-Biomed/Gene**

### ZACKS ESTIMATES

#### Revenue

(In millions of \$)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2021	4 A	0 A	0 A	0 A	0 A
2022	0 E	0 E	0 E	0 E	0 E
2023					0 E
2024					0 E

#### Earnings per Share

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2021	-\$0.00 A	-\$0.09 A	-\$0.07 A	-\$0.04 A	-\$0.21 A
2022	-\$0.08 E	-\$0.08 E	-\$0.09 E	-\$0.09 E	-\$0.34 E
2023					-\$0.36 E
2024					-\$0.40 E

## WHAT'S NEW

### Business Update

#### *Genzyme Patent Litigation Could Lead to Large Monetary Windfall for MediciNova*

On April 5, 2022, MediciNova, Inc. (MNOV) [filed](#) a Form 8-K stating that Genzyme Corp., a subsidiary of Sanofi, filed an amended complaint against Novartis Gene Therapies, Inc., Novartis Pharmaceuticals Corporation, and Novartis AG that included a claim for infringement of U.S. Patent No. 9,051,542. The lawsuit was originally filed by Genzyme in December 2021, with an amended complaint filed on February 23, 2022 that included the aforementioned patent. That patent, along with others, was included in the Assignment Agreement dated December 19, 2005 between Genzyme and Avigen, Inc. (which MediciNova acquired in 2009).

The lawsuit alleges that the defendants are infringing upon certain U.S. patents (including the patent listed above) through the unauthorized manufacture, use, and sale of adeno-associated virus (AAV) vectors for their gene therapy product Zolgensma<sup>®</sup>, which is used to treat children less than two years old with spinal muscular atrophy (SMA). Were Genzyme to receive any monetary damages as a result of the litigation, MediciNova would be entitled to receive a certain portion of those damages according to the terms of assignment agreement originally signed between Avigen and Genzyme (see section 5.2 of the agreement found [here](#)).

Zolgensma launched in 2019 and had worldwide sales of \$1.351 billion in 2021, with estimated peak sales in 2025 of \$1.957 billion (EvaluatePharma). While we do not know what percentage of any monetary damages collected MediciNova would be entitled to receive, since that portion of the assignment agreement isn't publicly disclosed, we believe that MediciNova's decision to file an 8-K means that it is likely a significant percentage that could be material to the company. Given that Zolgensma is a potential \$2 billion drug, monetary damages that amount to only a single digit percentage of yearly sales split between Genzyme and MediciNova could lead to a significant influx of capital for the company.

While there is no set rule for determining damages if a patent infringement case is ruled in the plaintiff's favor, the plaintiff's lost profits is typically used as the baseline with the potential to consider licensing fees that could otherwise have been earned. In cases that involve willful or deliberate infringement, the court may award additional damages, known as punitive damages, in an amount of up to three times the actual damages from the lost profits. A recent patent litigation case provides an example of what kind of monetary damages can be awarded. In 2019 a jury found that Kite Pharma had infringed on a patent owned by Juno Therapeutics relating to CAR-T therapies (Yescarta<sup>®</sup> for Kite and Breyanzi<sup>®</sup> for Juno). The jury originally awarded Juno \$752 million in December 2019, which was then increased to \$1.2 billion by a U.S. district court judge in April 2020. To provide some context to those awards and how they relate to yearly revenues, Yescarta generated revenues of \$695 million in 2021 and is projected to generate revenues of \$1.5 billion in 2026, while Breyanzi is expected to generate \$1.3 billion in revenues in 2026 (EvaluatePharma). Since those awards were decided, the U.S. Court of Appeals ruled key parts of the patent in question were invalid, thus reversing the prior decisions along with the monetary damages. The case may continue however as Bristol Myers, of which Juno is a subsidiary, may elect to appeal the Court of Appeals decision to a higher court.

### Conclusion

Patent infringement court cases are difficult to predict and it could take several years until a final outcome is known unless a settlement is reached prior to that. Thus, investors should not expect any type of fast outcome to the aforementioned lawsuit, but should instead look at it as a free call option for MediciNova with potentially large upside. We don't believe Genzyme would undertake this expensive litigation unless it believed it had a strong case and the fact that it has filed two complaints indicates how much time, money, and energy is going into the case. This news has not affected our valuation, which remains at \$27.00 per share, however we will continue to keep a close eye on how this case unfolds.

## PROJECTED FINANCIALS

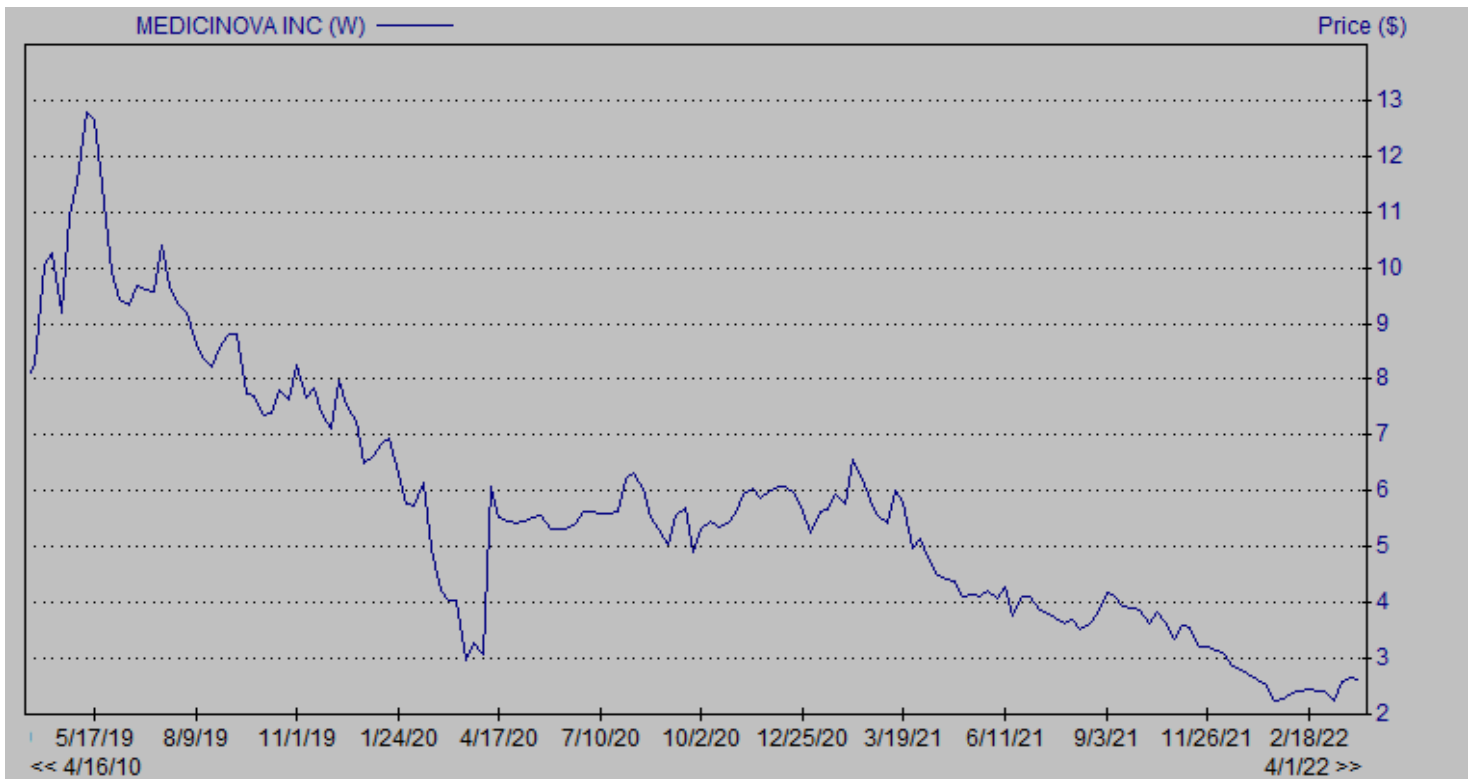
### MediciNova Inc. Income Statement

MediciNova, Inc.	2021 A	Q1 E	Q2 E	Q3 E	Q4 E	2022 E	2023 E	2024 E
MN-166 (Multiple Sclerosis)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MN-166 (ALS)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MN-166 (Addiction)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MN-166 (DCM)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MN-001 (NASH)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grants & Collaborative Revenue	\$4.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Revenues</b>	<b>\$4</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Cost of Sales	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Product Gross Margin</i>	-	-	-	-	-	-	-	-
Research & Development	\$8.5	\$2.2	\$2.3	\$2.3	\$2.4	\$9.2	\$10.0	\$12.0
General & Administrative	\$5.7	\$1.8	\$1.8	\$1.9	\$2.0	\$7.5	\$8.0	\$9.0
Other Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Operating Income</b>	<b>(\$10.2)</b>	<b>(\$4.0)</b>	<b>(\$4.1)</b>	<b>(\$4.2)</b>	<b>(\$4.4)</b>	<b>(\$16.7)</b>	<b>(\$18.0)</b>	<b>(\$21.0)</b>
<i>Operating Margin</i>	-	-	-	-	-	-	-	-
Non-Operating Expenses (Net)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.1
<b>Pre-Tax Income</b>	<b>(\$10.1)</b>	<b>(\$4.0)</b>	<b>(\$4.1)</b>	<b>(\$4.2)</b>	<b>(\$4.4)</b>	<b>(\$16.6)</b>	<b>(\$17.9)</b>	<b>(\$20.9)</b>
Income Taxes Paid	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Tax Rate</i>	0%	0%	0%	0%	0%	0%	0%	0%
<b>Net Income</b>	<b>(\$10.1)</b>	<b>(\$4.0)</b>	<b>(\$4.1)</b>	<b>(\$4.2)</b>	<b>(\$4.4)</b>	<b>(\$16.6)</b>	<b>(\$17.9)</b>	<b>(\$20.9)</b>
<i>Net Margin</i>	-	-	-	-	-	-	-	-
<b>Reported EPS</b>	<b>(\$0.21)</b>	<b>(\$0.08)</b>	<b>(\$0.08)</b>	<b>(\$0.09)</b>	<b>(\$0.09)</b>	<b>(\$0.34)</b>	<b>(\$0.36)</b>	<b>(\$0.40)</b>
<i>YOY Growth</i>	-	-	-	-	-	-	-	-
Basic Shares Outstanding	48,596	48,600	48,800	49,000	49,200	48,900	50,000	52,000

Source: Zacks Investment Research, Inc.

David Bautz, PhD

## HISTORICAL STOCK PRICE



Source: Zacks Small Cap Research

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