UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE TO

Tender Offer Statement Under Section 14(d)(1) or 13(e)(1)
of the Securities Exchange Act of 1934

RAPID MICRO BIOSYSTEMS, INC.
(Name of Subject Company (Issuer))

EMD HOLDINGS NEWCO II, INC
a wholly owned subsidiary of

MERCK KGAA
(Names of Filing Persons — Offerors)

Class A Common Stock, par value $0.01 per share
Class B Common Stock, par value $0.01 per share
(Title of Class of Securities)

75340L104
(CUSIP Number of Class of Securities)

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(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications on Behalf of Filing Persons)

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☒ Check the box if the filing relates solely to preliminary communications made before the commencement of a tender offer.

Check the appropriate boxes below to designate any transactions to which the statement relates:

☒ third-party tender offer subject to Rule 14d-1.
☐ issuer tender offer subject to Rule 13e-4.
☐ going-private transaction subject to Rule 13e-3.
☐ amendment to Schedule 13D under Rule 13d-2.

Check the following box if the filing is a final amendment reporting the results of the tender offer. ☐

If applicable, check the appropriate box(es) below to designate the appropriate rule provision(s) relied upon:

☐ Rule 13e-4(i) (Cross-Border Issuer Tender Offer)

☐ Rule 14d-1(d) (Cross-Border Third-Party Tender Offer)

This Tender Offer Statement on Schedule TO relates solely to preliminary communications made before the commencement of a planned tender offer for all outstanding shares of Class A Common Stock, par value $0.01 per share, and Class B Common Stock, par value $0.01 per share, of Rapid Micro Biosystems, Inc., a Delaware corporation ("Rapid"), by EMD Holdings NewCo II, Inc, a Delaware corporation ("Purchaser") and a wholly owned subsidiary of Merck KGaA, Darmstadt, Germany, a German corporation with general partners ("Parent") to be commenced pursuant to the Agreement and Plan of Merger, dated as of November 16, 2026, by and among Rapid, Parent and Purchaser.

Additional Information and Where to Find It

The tender offer described in this communication has not yet commenced, and this communication is neither an offer to purchase nor a solicitation of an offer to sell securities. At the time the tender offer is commenced, Parent and Purchaser will file a tender offer statement on Schedule TO with the U.S. Securities and Exchange Commission (the "SEC"), and Rapid will file a solicitation/recommendation statement on Schedule 14D-9 with the SEC. INVESTORS AND SECURITY HOLDERS ARE STRONGLY ADVISED TO READ THE TENDER OFFER STATEMENT (INCLUDING AN OFFER TO PURCHASE, LETTER OF TRANSMITTAL AND RELATED TENDER OFFER DOCUMENTS) THAT WILL BE FILED BY PARENT AND PURCHASER WITH THE SEC AND THE RELATED SOLICITATION/RECOMMENDATION STATEMENT ON SCHEDULE 14D-9 THAT WILL BE FILED BY RAPID WITH THE SEC, WHEN THEY BECOME AVAILABLE, BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION. These materials (once they become available) will be made available to Rapid shareholders at no cost by the information agent for the tender offer. Once filed, these documents will be available at no charge on the SEC's website at www.sec.gov. In addition, a copy of the offer to purchase, letter of transmittal and certain other related tender offer documents (once they become available) may be obtained free of charge from Parent under the "Investors" section of Parent's website at https://www.emdgroup.com/en. A copy of the solicitation/recommendation statement (once it becomes available) also may be obtained free of charge from Rapid under the "Investor Relations" section of Rapid's website at https://www.rapidmicrobio.com/.

Forward Looking Statements

This Tender Offer Statement includes "forward-looking statements" regarding the potential acquisition of Rapid. All statements, other than statements of historical fact, may be forward-looking statements. These forward-looking statements may be accompanied by such words as "outlook," "aim," "anticipate," "assume," "believe," "contemplate," "continue," "could," "due," "estimate," "expect," "goal," "intend," "may," "objective," "plan," "predict," "potential," "positioned," "seek," "should," "target," "will," "would" and other words and terms of similar meaning.

Readers are cautioned that any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties and are cautioned not to place undue reliance on these forward-looking statements. Actual results may differ materially from those currently anticipated due to a number of risks and uncertainties.

Risks and uncertainties include, but are not limited to: the risk that the closing conditions for the proposed acquisition will not be satisfied; uncertainty as to the percentage of Rapid shareholders that will support the proposed acquisition and tender their shares in the offer; the risk of shareholder litigation relating to the proposed acquisition, including resulting expense or delay; the possibility that the proposed acquisition will not be completed in the expected timeframe or at all; potential adverse effects to the businesses of Parent or Rapid during the pendency of the proposed acquisition, such as employee departures or distraction of management from business operations; the potential that the expected benefits and opportunities of the proposed acquisition, if completed, may not be realized or may take longer to realize than expected; the occurrence of any event, change or other circumstance that could give rise to the termination of the merger agreement and potential adverse reactions or changes to business relationships resulting from the proposed acquisition, including the effect of the acquisition on the ability to maintain key vendor, supplier or partner relationships; and risks related to the integration of Rapid into Parent subsequent to the closing of the proposed acquisition and the timing of such integration.

A further list and descriptions of these risks, uncertainties and other factors can be found in Parent's public reports which are available on the Parent's website at https://www.emdgroup.com/en. Parent is not under any obligation, and expressly disclaims any obligation, to update or otherwise revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

Item 12. Exhibits.

Exhibit	Description
99.1	Press Release, dated November 16, 2026.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

Exhibit 99.1

News Release

Your Contact
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November 16, 2026

Merck KGaA, Darmstadt, Germany Signs Definitive Agreement to Acquire Rapid Micro Biosystems, Advancing Automation in Pharmaceutical Quality Control

- **Proposed acquisition would strengthen company's quality-control workflow offering with Rapid Micro Biosystems' Growth Direct® automated microbial quality-control platform**
- **Growth Direct® supports faster microbial testing results and strengthens data integrity by automating testing steps and reducing manual transcription**
- **Advances Merck KGaA, Darmstadt, Germany's strategic focus on integrated workflow solutions**

Darmstadt, Germany, 16 November 2026 – Merck KGaA, Darmstadt, Germany, a leading science and technology company, has signed a definitive agreement to acquire Rapid Micro Biosystems, Inc. (Nasdaq: RPID). Rapid Micro Biosystems provides instruments, consumables, software and services that automate microbial quality-control testing in pharmaceutical manufacturing. The proposed acquisition would advance Merck KGaA, Darmstadt, Germany's strategic focus on integrated workflows by bringing Rapid Micro Biosystems' Growth Direct® platform together with its complementary pharmaceutical quality-control portfolio.

Under the terms of the agreement, Merck KGaA, Darmstadt, Germany would acquire Rapid Micro Biosystems for US$ 0.75 per share in cash.

"Quality control is essential to the reliable manufacture of medicines," said Paolo Carli, Head of Advanced Solutions for the Life Science business of Merck KGaA, Darmstadt, Germany. "Our customers need reliable results faster, more efficient quality-control workflows and robust data integrity to support regulatory compliance. Rapid Micro Biosystems will strengthen our ability to meet those needs, building on our existing offering and bringing greater automation to a critical step in pharmaceutical manufacturing."

News Release

Rapid Micro Biosystems' Growth Direct® platform fully automates microbial quality control testing to include sample incubation, imaging and colony counting.

Pharmaceutical manufacturers rely on Growth Direct® to automate environmental monitoring, water and bioburden testing.

By detecting microbial growth during incubation, the system is designed to provide results meaningfully faster than conventional manual methods and helps quality-control teams make decisions earlier. The platform also digitizes sample tracking and results, reducing manual transcription and supporting data integrity.

As the development and manufacture of biologics and advanced therapies - including cell and gene therapies - grow more complex, quality-control laboratories face greater demand for consistent testing, timely information and connected data. Automation can help laboratories manage these demands by reducing the time to results, minimizing manual steps and supporting earlier decisions.

The proposed acquisition would build on the portfolio of pharmaceutical quality-control products and workflow solutions in Merck KGaA, Darmstadt, Germany's Life Science business sector, spanning environmental monitoring, in-process testing and release testing. Rapid Micro Biosystems' automated microbial detection and data-management capabilities would strengthen this offering, supporting Merck KGaA, Darmstadt, Germany's increased focus on integrated workflow solutions as part of its mid- to long-term strategic agenda.

The proposed acquisition builds on the companies' global distribution and collaboration agreement announced in February 2025.

"Joining Merck KGaA, Darmstadt, Germany will give us the opportunity to combine our expertise in automation with a broader range of quality-control workflow solutions," said Robert Spignesi, President and CEO of Rapid Micro Biosystems.

“Our collective capabilities and deep understanding of pharmaceutical manufacturing and quality control will enable us to more fully serve our combined global customer base.”

The transaction is expected to close in December 2026, subject to customary closing conditions, including the tender of a number of voting shares of Rapid Micro Biosystems that represents at least a majority of the outstanding voting shares of Rapid Micro Biosystems (including shares issued upon exercise of pre-funded warrants).

Important Information and Where to Find It

The tender offer for the shares of Rapid Micro Biosystems has not yet commenced, and this communication is neither an offer to purchase nor a solicitation of an offer to sell securities. At the time the tender offer is commenced, Merck KGaA, Darmstadt, Germany and EMD Holdings NewCo II, Inc (“Purchaser”) will file a tender offer statement on Schedule TO with the U.S. Securities and Exchange Commission (the “SEC”), and Rapid Micro Biosystems will file a solicitation/recommendation statement on Schedule 14D-9 with the SEC. Investors and security holders are strongly advised to read the tender offer statement (including an offer to purchase, letter of transmittal and related tender offer documents) that will be filed by Merck KGaA, Darmstadt, Germany and Purchaser with the SEC and the related solicitation/recommendation statement on Schedule 14D-9 that will be filed by Rapid Micro Biosystems with the SEC, when they become available, because they will contain important information. These materials (once they become available) will be made available to Rapid Micro Biosystems’ shareholders at no cost by the information agent for the tender offer.

Once filed, these documents will be available at no charge on the SEC’s website at www.sec.gov. In addition, a copy of the offer to purchase, letter of transmittal and certain other related tender offer documents (once they become available) may be obtained free of charge from Merck KGaA, Darmstadt, Germany under the “Investors” section of Merck KGaA, Darmstadt, Germany’s website at https://www.emdgroup.com/en. A copy of the solicitation/recommendation statement (once it becomes available) also may be obtained free of charge from Rapid Micro Biosystems under the “Investor Relations” section of Rapid Micro Biosystems’ website at https://www.rapidmicrobio.com/.

Forward-Looking Statements

This communication contains “forward-looking statements” regarding the potential acquisition of Rapid Micro Biosystems. All statements, other than statements of historical fact, may be forward-looking statements. These forward-looking statements may be accompanied by such words as “outlook,” “aim,” “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “due,” “estimate,” “expect,” “goal,” “intend,” “may,” “objective,” “plan,” “predict,” “potential,” “positioned,” “seek,” “should,” “target,” “will,” “would” and other words and terms of similar meaning.

Readers are cautioned that any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties and are cautioned not to place undue reliance on these forward-looking statements. Actual results may differ materially from those currently anticipated due to a number of risks and uncertainties.

Risks and uncertainties include, but are not limited to: the risk that the closing conditions for the proposed acquisition will not be satisfied; uncertainty as to the percentage of Rapid Micro Biosystems shareholders that will support the proposed acquisition and tender their shares in the offer; the risk of shareholder litigation relating to the proposed acquisition, including resulting expense or delay; the possibility that the proposed acquisition will not be completed in the expected timeframe or at all; potential adverse effects to the businesses of Merck KGaA, Darmstadt, Germany or Rapid Micro Biosystems during the pendency of the proposed acquisition, such as employee departures or distraction of management from business operations; the potential that the expected benefits and opportunities of the proposed acquisition, if completed, may not be realized or may take longer to realize than expected; the occurrence of any event, change or other circumstance that could give rise to the termination of the merger

agreement; and potential adverse reactions or changes to business relationships resulting from the proposed acquisition, including the effect of the acquisition on the ability to maintain key vendor, supplier or partner relationships; and risks related to the integration of Rapid Micro Biosystems into Merck KGaA, Darmstadt, Germany subsequent to the closing of the proposed acquisition and the timing of such integration.

A further list and descriptions of these risks, uncertainties and other factors can be found in Merck KGaA, Darmstadt, Germany's public reports which are available on the Merck KGaA, Darmstadt, Germany website at https://www.emdgroup.com/en. Merck KGaA, Darmstadt, Germany is not under any obligation, and expressly disclaims any obligation, to update or otherwise revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

About Merck KGaA, Darmstadt, Germany

Merck KGaA, Darmstadt, Germany, a leading science and technology company, operates across life science, healthcare and electronics. More than 62,000 employees work to make a positive difference to millions of people's lives every day by creating more joyful and sustainable ways to live. From providing products and services that accelerate drug development and manufacturing as well as discovering unique ways to treat the most challenging diseases to enabling the intelligence of devices – the company is everywhere. In 2025, Merck KGaA, Darmstadt, Germany, generated sales of € 21.1 billion in 65 countries.

The company holds the global rights to the name and trademark "Merck" internationally. The only exceptions are the United States and Canada, where the business sectors of Merck KGaA, Darmstadt, Germany, operate as MilliporeSigma in life science, EMD Serono in healthcare and EMD Electronics in electronics. Since its founding in 1668, scientific exploration and responsible entrepreneurship have been key to the company's technological and scientific advances. To this day, the founding family remains the majority owner of the publicly listed company.

All Merck KGaA, Darmstadt, Germany, press releases are distributed by e-mail at the same time they become available on the EMD Group website. In case you are a resident of the USA or Canada, please go to www.emdgroup.com/subscribe to register online, change your selection or discontinue this service.