

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

**SCHEDULE TO/A
(RULE 14d-100)**

**TENDER OFFER STATEMENT UNDER SECTION 14(D)(1) OR SECTION 13(E)(1) OF
THE SECURITIES EXCHANGE ACT OF 1934
(Amendment No. 5)**

Monogram Biosciences, Inc.
(Name of Subject Company (Issuer))

Mastiff Acquisition Corp.
a wholly owned subsidiary of

Laboratory Corporation of America Holdings
(Name of Filing Persons (Offeror))

Common Stock, par value \$0.001 per share
(Title of Class of Securities)

60975U207
(CUSIP Number of Class of Securities)

F. Samuel Eberts III
Senior Vice President and Chief Legal Officer
Laboratory Corporation of America Holdings
358 South Main Street
Burlington, North Carolina 27215
(336) 229-1127
(Name, address and telephone number of person authorized
to receive notices and communications on behalf of filing persons)

with copies to:

Michael J. Silver
John H. Booher
William I. Intner
Hogan & Hartson LLP
111 South Calvert Street, 16th Floor
Baltimore, Maryland 21202
(410) 659-2700

CALCULATION OF FILING FEE

Transaction Valuation*	Amount of Filing Fee**
\$142,647,242	\$7,959.72

* Estimated for purposes of calculating the filing fee only. This amount assumes the purchase of up to 31,351,042 shares of common stock, par value \$0.001 per share, of Monogram Biosciences, Inc., at a purchase price of \$4.55 per share. Such number of shares represents the fully diluted number of shares of common stock on June 19, 2009 and consists of: (i) 23,042,427 shares of common stock issued and outstanding; (ii) approximately 4,733,255 shares of common stock subject to outstanding options under Monogram's stock plans; (iii) up to 4,465 shares issuable upon the exercise of

outstanding warrants; (iv) approximately 3,524,598 shares that could be issued upon conversion of Monogram's Amended and Restated 3% Senior Secured Convertible Note due 2010 and 0% Convertible Senior Unsecured Notes due 2026; and (v) up to approximately 46,297 shares of common stock that could be issued in lieu of quarterly cash payments pursuant to Monogram Biosciences Inc.'s Amended and Restated 3% Senior Secured Convertible Note. The calculation of the filing fee is based on capitalization information provided by Monogram Biosciences, Inc. as of June 19, 2009.

** The amount of the filing fee, calculated in accordance with Rule 0-11 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Fee Rate Advisory #5 for fiscal year 2009 equals 0.0000558 of the transaction valuation.

Check the box if any part of the fee is offset as provided by Rule 0-11(a)(2) and identify the filing with which the offsetting fee was previously paid.

Identify the previous filing by registration statement number or the Form or Schedule and the date of its filing.

Amount Previously Paid:	\$7,959.72
Form or Registration No.:	Schedule TO
Filing Party:	Mastiff Acquisition Corp. and Laboratory Corporation of America Holdings
Date Filed:	July 1, 2009

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:

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 boxes below to designate the appropriate rule provisions relied upon:

- Rule 13e-4(i) (Cross-Border Issues Tender Offer)
 - Rule 14d-1(d) (Cross-border Third-Party Tender Offer)
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This Amendment No. 5 (this "Amendment") amends and supplements the Tender Offer Statement on Schedule TO (as previously amended and supplemented by Amendment No. 1 filed on July 13, 2009, Amendment No. 2 filed on July 17, 2009, Amendment No. 3 filed on July 28, 2009 and Amendment No. 4 filed on July 29, 2009) filed with the Securities and Exchange Commission ("SEC") on July 1, 2009 (the "Schedule TO"), by Mastiff Acquisition Corp., a Delaware corporation (the "Purchaser") and a wholly owned subsidiary of Laboratory Corporation of America Holdings, a Delaware corporation ("LabCorp"). The Schedule TO relates to the offer by the Purchaser to purchase all of the outstanding shares of common stock, par value \$0.001 per share, (the "Shares") of Monogram Biosciences, Inc., a Delaware corporation ("Monogram"), at a price of \$4.55 per Share in cash, without interest and subject to applicable withholding of taxes, upon the terms and subject to the conditions set forth in the Offer to Purchase, dated July 1, 2009 (the "offer to purchase"), a copy of which is attached to the Schedule TO as Exhibit (a)(1)(A), and the related Letter of Transmittal and instructions thereto, a copy of which is attached to the Schedule TO as Exhibit (a)(1)(B), as they may be amended or supplemented from time to time. This Amendment is being filed on behalf of the Purchaser and LabCorp.

The information set forth in the Schedule TO remains unchanged, except that such information is hereby amended and supplemented to the extent specifically provided herein. Capitalized terms used but not defined herein have the meanings ascribed to them in the offer to purchase or in the Schedule TO.

Items 1, 4, 8 and 11. Summary Term Sheet; Terms of the Transaction; Interest in Securities of the Subject Company; Additional Information.

Items 1, 4, 8 and 11 of the Schedule TO, which incorporate by reference the information contained in the offer to purchase, are hereby amended and supplemented by adding the following text thereto:

"The Depository has advised LabCorp that, as of 12:00 midnight New York City time, at the end of the day on Monday, August 3, 2009, an aggregate of 21,481,203 Shares had been tendered into, and not withdrawn from, the offer, including 1,761,597 Shares tendered through notices of guaranteed delivery. The Shares tendered represent approximately 93% of the outstanding Shares. All Shares validly tendered in the offer (other than shares tendered through notices of guaranteed delivery) have been accepted for payment, and LabCorp expects to pay promptly for all such Shares. Shares validly tendered in satisfaction of notices of guaranteed delivery will also be accepted for payment and LabCorp expects to pay promptly for all such shares.

Purchaser also exercised its top-up option pursuant to the terms of the merger agreement and, as a result, Purchaser intends to effect a short-form merger as permitted by the Delaware General Corporation law by the close of business on August 4, 2009, without the need for a meeting of Monogram's stockholders. In the merger, each share not tendered and accepted for payment in the offer, other than those shares with respect to which the holders properly exercise appraisal rights and shares held by LabCorp or Purchaser, will be converted into the right to receive \$4.55 in cash, without interest thereon and subject to applicable withholding taxes. As a result of the merger, Monogram will become a wholly-owned subsidiary of LabCorp, and the Shares will cease to be traded on the NASDAQ Global Market.

On August 4, 2009, LabCorp issued a press release announcing the results of the offer. The full text of the press release is set forth as Exhibit (a)(5)(H) hereto and is incorporated by reference herein."

Item 12. Exhibits.

Item 12 of the Schedule TO is hereby amended and supplemented by adding the following to the list of exhibits:

"(a)(5)(H) Press release issued by LabCorp on August 4, 2009."

SIGNATURES

After due inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

LABORATORY CORPORATION OF AMERICA HOLDINGS

By: /s/ F. Samuel Eberts III

Name: F. Samuel Eberts III

Title: Senior Vice President and Chief Legal Officer

Dated: August 4, 2009

MASTIFF ACQUISITION CORP.

By: /s/ F. Samuel Eberts III

Name: F. Samuel Eberts III

Title: President and Secretary

Dated: August 4, 2009

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Exhibit</u>
(a)(5)(H)	Press release issued by LabCorp on August 4, 2009.



358 South Main Street
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Telephone: (336) 584-5171

FOR IMMEDIATE RELEASE

Investor/Media Contact:

Bill Bonello – 336-436-7732

Company Information: www.labcorp.com

LabCorp Successfully Completes Cash Tender Offer for Outstanding Shares of Monogram Biosciences, Inc.

Burlington, NC, August 4, 2009—Laboratory Corporation of America® Holdings (NYSE: LH) today announced the successful completion of the cash tender offer by its wholly owned subsidiary, Mastiff Acquisition Corp., for the outstanding shares of common stock of Monogram Biosciences, Inc. (NASDAQ: MGRM). The tender offer expired at 12:00 midnight, New York City time, at the end of the day on Monday, August 3, 2009.

The depository for the tender offer has advised LabCorp that as of the expiration of the tender offer, stockholders of Monogram validly tendered 21,481,203 shares of Monogram common stock, including 1,761,597 shares of Monogram common stock tendered through notices of guaranteed delivery. The shares tendered represent approximately 93% of the outstanding shares of Monogram. All Monogram shares validly tendered in the offer (other than shares tendered through notices of guaranteed delivery) have been accepted for payment, and LabCorp expects to pay promptly for all such shares. Shares validly tendered in satisfaction of notices of guaranteed delivery will also be accepted for payment and LabCorp expects to pay promptly for all such shares.

LabCorp also announced that Mastiff exercised its top-up option pursuant to the terms of the previously announced agreement and plan of merger entered into with Monogram and, as a result, Mastiff intends to effect a short-form merger as permitted by the Delaware General Corporation law by the close of business on August 4, 2009, without the need for a meeting of Monogram's stockholders. In the merger, each share not tendered and accepted for payment in the offer, other than those shares with respect to which the holders properly exercise appraisal rights and shares held by LabCorp or Mastiff, will be converted into the right to receive \$4.55 in cash, without interest thereon and subject to applicable withholding taxes. As a result of the merger, Monogram will become a wholly-owned subsidiary of LabCorp, and Monogram shares will cease to be traded on the NASDAQ Global Market.

About LabCorp®

Laboratory Corporation of America® Holdings, a S&P 500 company, is a pioneer in commercializing new diagnostic technologies and the first in its industry to embrace genomic testing. With annual revenues of \$4.5 billion in 2008, over 28,000 employees worldwide, and more than 220,000 clients, LabCorp offers clinical assays ranging from routine blood analyses to HIV and genomic testing. LabCorp combines its expertise in innovative clinical testing technology with its Centers of Excellence: The Center for Molecular Biology and Pathology, National Genetics Institute, Inc., ViroMed Laboratories, Inc., The Center for Esoteric Testing, Litholink Corporation, DIANON Systems, Inc., US LABS, and Esoterix and its Colorado Coagulation, Endocrine Sciences, and Cytometry Associates laboratories. LabCorp conducts clinical trial testing through its Esoterix Clinical Trials Services division. LabCorp clients include physicians, government agencies, managed care organizations, hospitals, clinical labs, and pharmaceutical companies. To learn more about our organization, visit our Web site at: www.labcorp.com.

Caution Concerning Forward-Looking Statements

Investors are cautioned that statements in this press release that are not strictly historical statements, including, without limitation, statements relating to the expected timing of the transaction, constitute forward-looking statements. These statements are based on current expectations, forecasts and assumptions of LabCorp and Monogram Biosciences, Inc. that are subject to risks and uncertainties that could cause actual outcomes and results to differ materially from those statements. Risks and uncertainties include, among others, the risk that the conditions to the merger set forth in the agreement and plan of merger will not be satisfied and the transactions will not be consummated, uncertainties as to the timing of the merger; as well as other factors detailed in LabCorp's and Monogram Biosciences, Inc.'s filings with the Securities and Exchange Commission, including LabCorp's Annual Report on Form 10-K for the year ended December 31, 2008 and subsequent SEC filings, and Monogram Biosciences, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2008 and subsequent SEC filings.

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