
**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. 4)**

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)

This Amendment No. 4 (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, and Amendment No. 2 filed on July 17, 2009 and Amendment No. 3 filed on July 28, 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 Schedule TO.

Items 1 and 4. Summary Term Sheet; Terms of the Transaction.

Items 1 and 4 of the Schedule TO are hereby amended and supplemented by adding the following text thereto:

"Upon the terms and conditions set forth in the offer to purchase, Purchaser has extended the offer until 12:00 midnight, New York City time, at the end of the day on Monday, August 3, 2009. The offer had been previously scheduled to expire at 12:00 midnight, New York City time, at the end of the day on Wednesday, July 29, 2009. The Depository has advised LabCorp and the Purchaser that, as of 4:00 p.m., New York City time, on Monday, July 27, 2009, an aggregate of approximately 4 million Shares had been tendered into, and not withdrawn from, the offer."

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: July 29, 2009

MASTIFF ACQUISITION CORP.

By: /s/ F. SAMUEL EBERTS III

Name: F. Samuel Eberts III

Title: President and Secretary

Dated: July 29, 2009