As filed with the Securities an	As filed with the Securities and Exchange Commission on December 11, 2018		
Registration No. 333	-		
UNITED STATES			
SECURITIES AND EXCHA	ANGE COMMISSION		
Washington, D.C. 20549			
FORM S-8			
REGISTRATION STATEM	ENT UNDER THE SECURITIES ACT OF 1933		
BIOANALYTICAL SYSTE	MS, INC.		
(Exact name of registrant as sp	pecified in its charter)		
Indiana	35-1345024		
(State or other jurisdiction of	(I.R.S. Employer		
incorporation or organization)	Identification No.)		
2701 Kent Avenue			
West Lafayette, Indiana			
(Address of Principal Executiv	ve Offices) (Zip Code)		

2008 Stock Option Plan as Amended and Restated in the form of the

BIOANALYTICAL SYSTEMS INC

Form S-8

December 11, 2018

Amended and Restated Bioanalytical Systems, Inc. Equity Incentive Plan

Jill C. Blumhoff

Vice President Finance and Chief Financial Officer

Bioanalytical Systems, Inc.

2701 Kent Avenue

West Lafayette, Indiana 47906

(765) 463-4527

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Stephen J. Hackman, Esq.

Ice Miller LLP

One American Square, Suite 2900

Indianapolis, Indiana 46282-0200

(317) 236-2289

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer " Accelerated filer "
Non-accelerated filer b Smaller reporting company b Emerging growth company "

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. "

CALCULATION OF REGISTRATION FEE

		Proposed	Proposed	
	Amount	Maximum	Maximum	
Title of	to be	Offering Price	Aggregate	Amount of
Securities to be Registered	Registered (1)(2)	per Share (3)(4)	Offering Price (3)(4)	Registration Fee (4)
Common Shares	700,000 shares	\$ 1.33	\$931,000.00	\$ 112.84

Represents

700,000

additional

shares

issuable

under the

(1) Amended and

Restated

Bioanalytical

Systems, Inc.

Equity

Incentive

Plan.

(2) Pursuant to

Rule 416

under the

Securities Act

of 1933, as

amended (the

"Securities

Act"), this

Registration

Statement is

deemed to

include

additional

shares

issuable under the terms of the Plan to prevent dilution resulting from any future stock split, stock dividend or similar

Estimated solely for the purpose of (3) calculating the registration

transaction.

(4) Calculated

fee.

pursuant to

Rule 457(c)

and (h).

Accordingly,

the price per

share of the

common

stock offered

hereunder

pursuant to

the Plan is

based on

700,000

shares

reserved for

issuance

under the

Plan at a

price per

share of

\$1.33, which

is the average

of the highest

and lowest

selling prices

for the shares

on the

NASDAQ

Capital Market on December 6, 2018.

REGISTRATION OF ADDITIONAL SHARES PURSUANT TO GENERAL INSTRUCTION E

This Registration Statement on Form S-8 (the "Registration Statement") of Bioanalytical Systems, Inc. (the "Company" or the "Registrant" or "we" or "our") is filed pursuant to General Instruction E to Form S-8 under the Securities Act of 1933, as amended, to register 700,000 additional Common Shares of the Company (the "Common Shares"), under the Company's 2008 Stock Option Plan as amended and restated in the form of the Amended and Restated Bioanalytical Systems, Inc. Equity Incentive Plan (the "Plan"). This Registration Statement on Form S-8 hereby incorporates by reference the contents of the Registrant's registration statement on Form S-8 filed with the Securities and Exchange Commission on September 30, 2008 (Registration No. 333-153734) with respect to the contents applicable to the Plan (referred to as the 2008 Stock Option Plan prior to the amendment and restatement thereof in the form of the Amended and Restated Bioanalytical Systems, Inc. Equity Incentive Plan effective January 24, 2018).

PART II

INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

We incorporate by reference (excluding any information and exhibits furnished pursuant to Items 2.02 or 7.01 of any report on Form 8-K) the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), until the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold:

•Our annual report on Form 10-K for the year ended September 30, 2017, filed December 22, 2017;

Our Proxy Statement on Schedule 14A filed on January 26, 2018;

Our Quarterly Reports on Form 10-Q for the quarters ended December 31, 2017, March 31, 2018 and June 30, 2018, filed on February 14, 2018, May 15, 2018 and August 14, 2018, respectively;

- Our Current Reports on Form 8-K filed on November 2, 2017, March 23, 2018, April 30, 2018, July 3, 2018 (as amended on September 14, 2018) and October 4, 2018, respectively; and
- Our Registration Statement No. 333-172503 on Form S-1 filed with the Commission on February 28, 2011, as amended, which describes the terms, rights and provisions applicable to our outstanding Common Shares.

Item 8. Exhibits.

The following documents are included as part of this Registration Statement.

Exhibit Number	Description
<u>5.1*</u>	Opinion of Ice Miller LLP
<u>10.1</u>	Amended and Restated Bioanalytical Systems, Inc. Equity Incentive Plan
<u>23.1*</u>	Consent of RSM US LLP
23.2*	Consent of Purk & Associates P.C.
<u>23.3</u>	Consent of Ice Miller LLP (contained in Exhibit 5.1 hereto)
<u>24.1</u>	Powers of Attorney (contained on the signature page to this Registration Statement)

^{*} Filed herewith

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of West Lafayette, Indiana, on the 11th day of December, 2018.

BIOANALYTICAL SYSTEMS, INC.

By:/s/ Jill C. Blumhoff
Jill C. Blumhoff
Vice President Finance and
Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each individual whose signature appears below hereby constitutes and appoints Jill C. Blumhoff and Jeffrey Potrzebowski, and each of them, each with full power to act without the other, his/her true and lawful attorneys-in-fact and agents, each with full power of substitution and resubstitution for him/her and in his/her name, place and stead, in any and all capacities, to sign any or all amendments to this Registration Statement, and to file the same with all exhibits thereto and other documents in connection therewith, with the Commission, granting unto each of said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he/she might or could do in person hereby ratifying and confirming that each of said attorneys-in-fact and agents or his/her substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Capacity	Date
	Senior Vice President, Preclinical Services	
		December 11, 2018
/s/ Philip A. Downing	(Acting Principal Executive Officer)	

Philip A. Downing /s/ Jill C. Blumhoff Jill C. Blumhoff	Chief Financial Officer and Vice President Finance (Principal Financial and Accounting Officer)	December 11, 2018
/s/ Gregory C. Davis, Ph.D. Gregory C. Davis, Ph.D.	Chairman	December 11, 2018
/s/ Richard A. Johnson, Ph.D. Richard A. Johnson, Ph.D.	Director	December 11, 2018
/s/ R. Matthew Neff R. Matthew Neff	Director	December 11, 2018
/s/ Wendy Perrow Wendy Perrow	Director	December 11, 2018
/s/ John E. Sagartz John E. Sagartz, DVM, Ph.D., DACVP	Director	December 11, 2018

INDEX TO EXHIBITS

Exhibit Number	Description
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<u>10.1</u>	Amended and Restated Bioanalytical Systems, Inc. Equity Incentive Plan (incorporated by reference to
10.1	Annex A of the registrant's definitive proxy statement, filed January 26, 2018, File No. 000-233357)
<u>23.1*</u>	Consent of RSM US LLP
<u>23.2*</u>	Consent of Purk & Associates P.C.
<u>23.3</u>	Consent of Ice Miller LLP (contained in Exhibit 5.1 hereto)
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