UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1 REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

Acumen Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

2836 (Primary Standard Industrial Classification Code Number) 36-4108129 (I.R.S. Employer Identification No.)

427 Park St. Charlottesville, VA 22902 (434) 297-1000

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Daniel O'Connell Chief Executive Officer Acumen Pharmaceuticals, Inc. 427 Park St. Charlottesville, VA 22902 (434) 297-1000

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

Copies to:

Darren DeStefano Katherine Denby Cooley LLP 11951 Freedom Dr. #1500 Reston, Virginia 20190 (703) 456-8039

Large accelerated filer

Non-accelerated filer

|X|

Patrick O'Brien Thomas J. Danielski Ropes & Gray LLP Prudential Tower 800 Boylston Street Boston, MA 02199 (617) 951-7000

Accelerated filer

Smaller reporting company

|X|

Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.
If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. \Box
If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \boxtimes (333-256945)
If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box
If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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.

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying win	th any
new or revised financial accounting standards provided pursuant to Section $7(a)(2)(B)$ of the Securities Act. \Box	

CALCULATION OF REGISTRATION FEE

Title of Securities Being Registered	Amount to be Registered(1)	Proposed Maximum Aggregate Offering Price Per Share(2)(3)	Proposed Maximum Aggregate Offering Price(3)	Amount of Registration Fee
Common Stock, \$0.0001 par value per share	1,916,666	\$16.00	\$30,666,656	\$3,346

- (1) Represents only the additional number of shares being registered and includes 250,000 shares of common stock issuable upon exercise of the underwriters' option to purchase additional shares. Does not include the securities that the Registrant previously registered on the Registration Statement on Form S-1, as amended (File No. 333-256945).
- (2) Based on the public offering price.
- The registration fee is calculated in accordance with Rule 457(a) under the Securities Act of 1933, as amended, based on the proposed maximum aggregate offering price. The registrant previously registered securities at an aggregate offering price not to exceed \$153,333,312 on a Registration Statement on Form S-1 (File No. 333-256945), which was declared effective by the Securities and Exchange Commission on June 30, 2021. In accordance with Rule 462(b) under the Securities Act, an additional amount of securities having a proposed maximum aggregate offering price of \$30,666,656 is hereby registered, which includes shares issuable upon the exercise of the underwriters' option to purchase additional shares.

This Registration Statement shall become effective upon filing in accordance with Rule 462(b) promulgated under the Securities Act of 1933, as amended.

EXPLANATORY NOTE AND INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

This Registration Statement is being filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the "Securities Act"), for the sole purpose of increasing the aggregate number of shares of common stock offered by Acumen Pharmaceuticals, Inc. (the "Registrant") by 1,916,666 shares, 250,000 of which are subject to purchase upon exercise of the underwriters' option to purchase additional shares of the Registrant's common stock. The contents of the Registration Statement on Form S-1, as amended (File No. 333-256945), filed by the Registrant with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act, which was declared effective by the Commission on June 30, 2021 (the "Prior Registration Statement"), are incorporated by reference into this Registration Statement. The additional shares of common stock that are being registered for sale are in an amount and at a price that together represent no more than 20% of the maximum aggregate offering price set forth in the Calculation of Registration Fee table contained in the Prior Registration Statement.

The required opinion and consents are listed on the Exhibit Index attached hereto and filed herewith.

EXHIBIT INDEX

Exhibit <u>Number</u>	<u>Description</u>
5.1	Opinion of Cooley LLP
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm
23.2	Consent of Cooley LLP (included in Exhibit 5.1)
24.1	Power of Attorney (included on the signature page of the Registration Statement on Form S-1 (File No. 333-256945), originally filed with the Commission on June 9, 2021 and incorporated herein by reference)
24.2	<u>Power of Attorney of Nathan B. Fountain, M.D. (included as Exhibit 24.2 to the Registration Statement on Form S-1 (File No. 333-256945, originally filed with the Commission on June 9, 2021 and incorporated herein by reference)</u>

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the city of City of Charlottesville, Commonwealth of Virginia, on this 30th day of June, 2021.

ACUMEN PHARMACEUTICALS, INC.

By: /s/ Daniel O'Connell

Name: Daniel O'Connell
Title: Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
/s/ Daniel O'Connell Daniel O'Connell	Chief Executive Officer and Director (Principal Executive Officer)	June 30, 2021
/s/ William Matthew Zuga William Matthew Zuga	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	June 30, 2021
* Jeffrey L. Ives, Ph.D.	Director	June 30, 2021
* Sean Stalfort	Director	June 30, 2021
* Laura Stoppel, Ph.D.	Director	June 30, 2021
* Nathan B. Fountain, M.D.	Director	June 30, 2021
* Jeffrey Sevigny, M.D.	Director	June 30, 2021
*By: /s/ Daniel O'Connell Daniel O'Connell Attorney-in-Fact		



Darren DeStefano +1 703 456 8034 ddestefano@cooley.com

June 30, 2021

Acumen Pharmaceuticals, Inc. 427 Park St. Charlottesville, VA 22902

Ladies and Gentlemen:

We have acted as counsel to Acumen Pharmaceuticals, Inc., a Delaware corporation (the "*Company*"), in connection with the filing by the Company of a Registration Statement on Form S-1 (the "*Registration Statement*") with the Securities and Exchange Commission pursuant to Rule 462(b) promulgated under the Securities Act of 1933, as amended, covering an underwritten public offering of up to 11,499,998 shares of the Company's common stock, par value \$0.0001 per share ("*Shares*"). The Registration Statement incorporates by reference the registration statement on Form S-1 (No. 333-256945), which was declared effective on June 30, 2021 (the "*Prior Registration Statement*"), including the prospectus that is part of the Prior Registration Statement (the "*Prospectus*").

In connection with this opinion, we have examined and relied upon (a) the Registration Statement and the Prospectus, (b) the Company's Amended and Restated Certificate of Incorporation, as amended, and Amended and Restated Bylaws, each as currently in effect, (c) the forms of the Company's Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, filed as Exhibits 3.3 and 3.4, to the Registration Statement, respectively, each of which is to be in effect upon the closing of the offering contemplated by the Registration Statement and (d) originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below.

We have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies, the accuracy, completeness and authenticity of the certificates of public officials and the due authorization, execution and delivery of all documents by all persons other than by the Company where due authorization, execution and delivery are prerequisites to the effectiveness thereof. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not independently verified such matters.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued against payment therefor as described in the Registration Statement and the Prospectus, will be validly issued, fully paid and non-assessable.

Cooley LLP 11951 Freedom Dr. #1500 Reston, VA 20190 t: (703) 456-8039 f: (703) 456-8100 cooley.com



Darren DeStefano

June 30, 2021 Page Two

We consent to the reference to our firm under the caption "Legal Matters" in the Prospectus included in the Prior Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

Cooley LLP

By: /s/ Darren DeStefano

Cooley LLP 11951 Freedom Dr. #1500 Reston, VA 20190 t: (703) 456-8039 f: (703) 456-8100 cooley.com

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement on Form S-1 filed pursuant to Rule 462(b) of the Securities Act of 1933 of the reference to our firm under the caption "Experts" and to the incorporation by reference of our report dated April 9, 2021 (except for Note 10 as to which the date is June 23, 2021), with respect to the financial statements of Acumen Pharmaceuticals, Inc. included in Amendment No. 1 to the Registration Statement (Form S-1 No. 333-256945) and related Prospectus of Acumen Pharmaceuticals, Inc. for the registration of shares of its common stock.

/s/ Ernst & Young LLP

Tysons, Virginia June 29, 2021