As filed with the Securities and Exchange Commission on July 23, 2020.

Registration No. 333-

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1 REGISTRATION STATEMENT UNDER

THE SECURITIES ACT OF 1933

iTeos Therapeutics, 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)

iTeos Therapeutics, Inc. 139 Main Street Cambridge, MA 02142 (339) 217 0162

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

Copies to:

Mitchell S. Bloom, Esq. Danielle Lauzon, Esq. Stephanie A. Richards, Esq. Goodwin Procter LLP 100 Northern Avenue Boston, Massachusetts 02210 (617) 570-1000 Divakar Gupta Richard C. Segal Brent B. Siler Madison A. Jones Cooley LLP 55 Hudson Yards New York, New York 10001 (212) 479-6000

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

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. 🛛 333-239415

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.

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, 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 \Box Non-accelerated filer \boxtimes

Accelerated filer□Smaller reporting company⊠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 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be registered(1)	Proposed maximum aggregate offering price per share	Proposed maximum aggregate offering price	Amount of registration fee(2)
Common stock, \$0.001 par value per share	1,939,263	\$19.00	\$36,845,997	\$4,782.62

(1) Represents only the additional number of shares being registered and includes 252,947 shares of common stock issuable upon exercise of the underwriters' option to purchase additional shares to cover over-allotments, if any. Does not include the securities that the Registrant previously registered on the Registration Statement on Form S-1 (File No. 333-239415).

84-3365066 (I.R.S. Employer Identification No.) (2) 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 \$184,230,000 on a Registration Statement on Form S-1 (File No. 333-239415), which was declared effective by the Securities and Exchange Commission on July 23, 2020. In accordance with Rule 462(b) under the Securities Act, an additional amount of securities having a proposed maximum aggregate offering price of \$19.00 is hereby registered, which includes shares issuable upon the exercise of the underwriters' option to purchase additional shares.

The 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 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 iTeos Therapeutics, Inc. (the "Registrant") by 1,939,263 shares, 252,947 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. 333-239415), 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 July 23, 2020, are incorporated by reference into this Registration Statement.

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

Exhibit

EXHIBIT INDEX

No.	Exhibit Index
5.1	Opinion of Goodwin Procter LLP
23.1	Consent of Deloitte Bedrijfsrevisoren / Réviseurs d'Entreprises CVBA/SCRL, Independent Registered Public Accounting Firm
23.2	Consent of Goodwin Procter LLP (included in Exhibit 5.1)
24.1*	Power of Attorney

* Previously filed on the signature page to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-239415), originally filed with the Securities and Exchange Commission on June 24, 2020 and incorporated by reference herein.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, iTeos Therapeutics, Inc. has duly caused this registration statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Commonwealth of Massachusetts, on the 23rd day of July, 2020.

iTeos Therapeutics, Inc.

By:	/s/ Michel Detheux
Name:	Michel Detheux
Title:	Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement on Form S-1 has been signed by the following person in the capacities and on the date indicated.

Name	Title	Date
/s/ Michel Detheux Michel Detheux	Chief Executive Officer and Director (Principal Executive Officer)	July 23, 2020
* David L. Hallal	Director and Chairman of the Board of Directors	July 23, 2020
/s/ Matthew Gall Matthew Gall	Chief Financial Officer (Principal Accounting Officer and Principal Financial Officer)	July 23, 2020
* Priyanka Belawat	Director	July 23, 2020
* Detlev Biniszkiewicz	Director	July 23, 2020
* Aaron Davis	Director	July 23, 2020
* Derek DiRocco	Director	July 23, 2020
* Ansbert Gadicke	Director	July 23, 2020
* Tim Van Hauwermeiren	Director	July 23, 2020
* Ann D. Rhoads	Director	July 23, 2020

Re: <u>Securities Registered under Registration Statement on Form S-1</u>

We have acted as counsel to you in connection with your filing of (i) a Registration Statement on Form S-1 (File No. 333-239415) (as amended or supplemented, the "Initial Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act") and (ii) a second Registration Statement on Form S-1 filed pursuant to Rule 462(b) promulgated under the Securities Act (the "462(b) Registration Statement," and together with the Initial Registration Statement, the "Registration Statement"). This opinion letter is being furnished to you in connection with your filing of the 462(b) Registration Statement, relating to the registration of the offering by iTeos Therapeutics, Inc., a Delaware corporation (the "Company") of up to 12,174,263 shares (the "Shares") of the Company's Common Stock, \$0.001 par value per share, including 1,587,947 Shares purchasable by the underwriters upon their exercise of an over-allotment option granted to the underwriters by the Company. The Shares are being sold to the several underwriters named in, and pursuant to, an underwriting agreement among the Company and such underwriters (the "Underwriting Agreement").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinions set forth below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinions set forth below, on certificates of officers of the Company.

The opinion set forth below is limited to the Delaware General Corporation Law.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon issuance and delivery against payment therefor in accordance with the terms of the Underwriting Agreement, the Shares will be validly issued, fully paid and non-assessable.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the 462(b) Registration Statement and to the references to our firm under the caption "Legal Matters" in the Initial Registration Statement. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/s/ Goodwin Procter LLP GOODWIN PROCTER LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-1 of our report dated May 22, 2020, (July 20, 2020 as to the effects of the reverse stock split described in Note 14) relating to the financial statements of iTeos Therapeutics, Inc. appearing in Registration Statement No. 333-239415 on Form S-1 of iTeos Therapeutics, Inc. We also consent to the reference to us under the heading "Experts" in Registration Statement No. 333-239415 incorporated by reference in this Registration Statement.

/s/ Deloitte Bedrijfsrevisoren/Réviseurs d'Entreprises CVBA/SCRL

Zaventem, Belgium July 23, 2020