UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No. 6)*

Autolus Therapeutics plc

(Name of Issuer)

American Depositary Shares and Ordinary Shares, nominal value \$0.000042 per share (Title of Class of Securities)

> 05280R 100** (CUSIP Number)

December 31, 2023 (Date of Event which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

 \Box Rule 13d-1(b)

 \Box Rule 13d-1(c)

 \boxtimes Rule 13d-1(d)

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the *Notes*).

** There is no CUSIP number assigned to the ordinary shares. CUSIP number 05280R 100 has been assigned to the American Depositary Shares of the Issuer, which are quoted on the Nasdaq Global Select Market under the symbol "AUTL." Each American Depositary Share represents the right to receive one ordinary share.

1	Names of Reporting Person:							
	Syncona Portfolio Limited							
2	2 Check the appropriate box if a member of a Group (see instructions)							
	(a) \Box (b) \boxtimes							
3	SEC Use	e On	ly					
4	Citizens	hip c	or Place of Organization					
	Guernse	y						
		5	Sole Voting Power					
N	umber of		0					
	Shares	6	Shared Voting Power					
Be	neficially							
0	Owned by		33,527,162 (1)					
	Each		Sole Dispositive Power					
	Reporting							
	Person		0					
	With:	8	Shared Dispositive Power					
			33,527,162 (1)					
9	Aggrega	te A	mount Beneficially Owned by Each Reporting Person					
	33,527,1							
10	Check b	ox if	the aggregate amount in row (9) excludes certain shares (See Instructions)					
11	11 Percent of class represented by amount in row (9)							
	14.4% (2)							
12	Type of	Repo	orting Person (See Instructions)					
	CO							

- (1) Consists of 12,180,333 ordinary shares and 21,346,829 American Depositary Shares ("ADSs") held directly by Syncona Portfolio Limited. Each ADS represents one ordinary share, nominal value \$0.000042 per share, of the Issuer. The ordinary shares and the ADSs are collectively referred to as the "Ordinary Shares".
- (2) Based on 232,270,130 Ordinary Shares outstanding following the consummation of the Issuer's public offering on February 12, 2024, as more fully described in the Issuer's Form 8-K filed with the Securities and Exchange Commission (the "SEC") on February 8, 2024 and the Issuer's prospectus supplement filed with the SEC on February 9, 2024.

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1	1 Names of Reporting Person:							
	Syncona Holdings Limited							
2	\mathbf{r}							
	(a) \Box (b) \boxtimes							
3	SEC Use	e On	ly					
4	Citizens	hip o	or Place of Organization					
	Guernse	y						
		5	Sole Voting Power					
N	umber of		0					
	Shares	6	Shared Voting Power					
	neficially							
	wned by		33,527,162 (1)					
	Each		Sole Dispositive Power					
R	Reporting Person With:							
			0					
			Shared Dispositive Power					
			33,527,162 (1)					
9	Aggrega	te A	mount Beneficially Owned by Each Reporting Person					
	33,527,1	62 (1)					
10								
	check box if the aggregate amount in row (9) excludes certain shares (see instructions)							
11 Percent of class represented by amount in row (9)								
	1 ereent							
	14.4% (2)							
12			orting Person (See Instructions)					
12	12 Type of Reporting Letoon (occ instructions)							
	СО							

(1) Consists of 12,180,333 ordinary shares and 21,346,829 ADSs held directly by Syncona Portfolio Limited. Each ADS represents one ordinary share, nominal value \$0.000042 per share, of the Issuer.

(2) The percentage of outstanding Ordinary Shares of the Issuer beneficially owned by Syncona Portfolio Limited is set forth on Line 11 above. Based on 232,270,130 Ordinary Shares outstanding following the consummation of the Issuer's public offering on February 12, 2024, as more fully described in the Issuer's Form 8-K filed with the SEC on February 8, 2024, and the Issuer's prospectus supplement filed with the SEC on February 9, 2024.

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1	1 Names of Reporting Person:							
	Syncona Investment Management Limited							
2								
	(a) \square (b) \boxtimes							
3	3 SEC Use Only							
4	4 Citizenship or Place of Organization							
	United Kingdom							
		5	Sole Voting Power					
Ni	umber of		0					
	Shares	6	Shared Voting Power					
	neficially		33,527,162 (1)					
0	Owned by Each		Sole Dispositive Power					
	Reporting							
	Person		0					
	With:	8	Shared Dispositive Power					
			33,527,162 (1)					
9	Aggrega	te A	mount Beneficially Owned by Each Reporting Person					
	33,527,1	62.(1)					
10			the aggregate amount in row (9) excludes certain shares (See Instructions)					
11	1 Percent of class represented by amount in row (9)							
	14.4% (2	2)						
12			orting Person (See Instructions)					
	СО							

(1) Consists of 12,180,333 ordinary shares and 21,346,829 ADSs held directly by Syncona Portfolio Limited. Each ADS represents one ordinary share, nominal value \$0.000042 per share, of the Issuer.

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1	NT	C D						
1	Names of Reporting Person:							
	Syncona Limited							
2								
	(a) \Box (b) \boxtimes							
3	SEC Use	e On	ly					
4	Citizens	hip o	or Place of Organization					
	Guernse	у						
		5	Sole Voting Power					
N	umber of		0					
	Shares	6	Shared Voting Power					
Be	neficially							
0	Owned by		33,527,162 (1)					
	Each		Sole Dispositive Power					
R	Reporting							
	Person		0					
	With:		Shared Dispositive Power					
			33,527,162 (1)					
9	Aggrega	te A	mount Beneficially Owned by Each Reporting Person					
	33,527,1	62 (1)					
10			the aggregate amount in row (9) excludes certain shares (See Instructions)					
11	11 Percent of class represented by amount in row (9)							
	14.4% (2)							
12			orting Person (See Instructions)					
	СО							
L								

(1) Consists of 12,180,333 ordinary shares and 21,346,829 ADSs held directly by Syncona Portfolio Limited. Each ADS represents one ordinary share, nominal value \$0.000042 per share, of the Issuer.

(2) The percentage of outstanding Ordinary Shares of the Issuer beneficially owned by Syncona Portfolio Limited is set forth on Line 11 above. Based on 232,270,130 Ordinary Shares outstanding following the consummation of the Issuer's public offering on February 12, 2024, as more fully described in the Issuer's Form 8-K filed with the SEC on February 8, 2024, and the Issuer's prospectus supplement filed with the SEC on February 9, 2024.

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1	1 Names of Reporting Person:							
	Roel Bulthuis							
2								
	(a) \Box (b) \boxtimes							
3	SEC Use	e Onl	ly					
4	Citizens	hip o	r Place of Organization					
		•	č					
	Netherla	nds						
		5	Sole Voting Power					
N	umber of		0					
	Shares	6	Shared Voting Power					
	neficially	Ŭ						
	wned by		33,527,162 (1)					
0	Each		Sole Dispositive Power					
R	Reporting Person		Sole Dispositive Tower					
			0					
	With:	8	Shared Dispositive Power					
		0	Shared Dispositive Power					
			22,527,1(2,(1))					
			33,527,162 (1)					
9	Aggrega	te Ai	mount Beneficially Owned by Each Reporting Person					
	00 505 1	() (
	33,527,162 (1)							
10	Check b	ox 1f	the aggregate amount in row (9) excludes certain shares (See Instructions)					
11	Percent	of cla	ass represented by amount in row (9)					
	14.4% (2)							
12	Type of	Repo	orting Person (See Instructions)					
	IN							

(1) Consists of 12,180,333 ordinary shares and 21,346,829 ADSs held directly by Syncona Portfolio Limited. Each ADS represents one ordinary share, nominal value \$0.000042 per share, of the Issuer.

(2) The percentage of outstanding Ordinary Shares of the Issuer beneficially owned by Syncona Portfolio Limited is set forth on Line 11 above. Based on 232,270,130 Ordinary Shares outstanding following the consummation of the Issuer's public offering on February 12, 2024, as more fully described in the Issuer's Form 8-K filed with the SEC on February 8, 2024, and the Issuer's prospectus supplement filed with the SEC on February 9, 2024.

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1	Names of Reporting Person:							
	Christopher Hollowood							
2	2 Check the appropriate box if a member of a Group (see instructions)							
	(a) \Box (b) \boxtimes							
3	SEC Use	e On	ly					
4	Citizens	hip o	r Place of Organization					
	United k	Cingo	lom					
		5	Sole Voting Power					
			č					
N	umber of		0					
	Shares	6	Shared Voting Power					
	neficially	-						
	Owned by		33,527,162 (1)					
0	Each		Sole Dispositive Power					
R	Reporting							
	Person		0					
	With:	8	Shared Dispositive Power					
		0						
			33,527,162 (1)					
9	Δσσrega	te Δ	mount Beneficially Owned by Each Reporting Person					
	11551054		mount bencheanly owned by Each Reporting reison					
	33,527,1	62 (1)					
10								
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)							
11	II Percent of class represented by amount in row (9)							
11	Percent		ass represented by amount in row (9)					
	1 4 407 1	•						
12	14.4% (2		stine Demons (Care Instantions)					
12	Type of	керс	orting Person (See Instructions)					
	IN							

(1) Consists of 12,180,333 ordinary shares and 21,346,829 ADSs held directly by Syncona Portfolio Limited. Each ADS represents one ordinary share, nominal value \$0.000042 per share, of the Issuer.

(2) The percentage of outstanding Ordinary Shares of the Issuer beneficially owned by Syncona Portfolio Limited is set forth on Line 11 above. Based on 232,270,130 Ordinary Shares outstanding following the consummation of the Issuer's public offering on February 12, 2024, as more fully described in the Issuer's Form 8-K, filed with the SEC on February 8, 2024, and the Issuer's prospectus supplement filed with the SEC on February 9, 2024.

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Item 1.

- (a) Name of Issuer: Autolus Therapeutics plc
- (b) Address of Issuer's principal executive offices: The Mediaworks, 191 Wood Lane, London W12 7FP, United Kingdom

Item 2.

(a) Name of reporting persons filing:

- (i) Syncona Portfolio Limited;
- (ii) Syncona Holdings Limited;
- (iii) Syncona Investment Management Limited;
- (iv) Syncona Limited;
- (v) Roel Bulthuis; and
- (vi) Christopher Hollowood

(b) Address of principal business office or, if none, residence:

The address of the principal business office of Syncona Portfolio Limited, Syncona Holdings Limited and Syncona Limited is Frances House, PO Box 273, Sir William Place, St. Peter Port, Guernsey, GY1 3RD, Channel Islands. The address of the principal business office of Syncona Investment Management Limited, Roel Bulthuis and Christopher Hollowood is 2nd Floor, 8 Bloomsbury Street, London WC1B 3SR, United Kingdom.

(c) Citizenship:

Syncona Portfolio Limited, Syncona Holdings Limited and Syncona Limited's citizenship is Guernsey. Syncona Investment Management Limited and Christopher Hollowood's citizenship is United Kingdom. Roel Bulthuis' citizenship is the Netherlands.

(d) Title and class of securities:

Ordinary Shares, nominal value \$0.000042 per share, and American Depositary Shares ("ADS"). Each ADS represents one ordinary share, nominal value \$0.000042 per share, of the Issuer.

(e) CUSIP No.:

There is no CUSIP number assigned to the ordinary shares. CUSIP number 05280R 100 has been assigned to the ADS, which are quoted on the Nasdaq Global Select Market under the symbol "AUTL."

Item 3. If this statement is filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

Not applicable.

Item 4. Ownership:

The following information with respect to the ownership of Ordinary Shares of the Issuer by the Reporting Persons filing this statement on Schedule 13G/A is provided as of December 31, 2023:

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Reporting Persons	Ordinary Shares Held Directly (1)	Sole Power to Vote or Direct the Vote (1)	Shared Power to Vote or Direct the Vote (1)	Sole Power to Dispose or Direct the Disposition (1)	Shared Power to Dispose or Direct the Disposition (1)	Amount Beneficially Owned (1)	Percentage of Class (2)
Syncona Portfolio Limited	33,527,162	0	33,527,162	0	33,527,162	33,527,162	14.4%
Syncona Holdings Limited	0	0	33,527,162	0	33,527,162	33,527,162	14.4%
Syncona Investment Management Limited	0	0	33,527,162	0	33,527,162	33,527,162	14.4%
Syncona Limited	0	0	33,527,162	0	33,527,162	33,527,162	14.4%
Roel Bulthuis	0	0	33,527,162	0	33,527,162	33,527,162	14.4%
Christopher Hollowood	0	0	33,527,162	0	33,527,162	33,527,162	14.4%

0.1

- (1) Consists of 12,180,333 ordinary shares and 21,346,829 ADSs held directly by Syncona Portfolio Limited. Each ADS represents one ordinary share, nominal value \$0.000042 per share, of the Issuer. The ordinary shares and the ADS are collectively referred to as the "Ordinary Shares".
- (2) The percentage of outstanding Ordinary Shares of the Issuer beneficially owned was calculated based on 232,270,130 Ordinary Shares outstanding following the consummation of the Issuer's public offering on February 12, 2024, as more fully described in the Issuer's Form 8-K filed with the SEC on February 8, 2024, and the Issuer's prospectus supplement filed with the Securities and Exchange Commission on February 9, 2024.

The shares are owned directly by Syncona Portfolio Limited ("Syncona Portfolio") and indirectly by Syncona Holdings Limited ("Syncona Holdings"), Syncona Limited ("Syncona Limited"), Roel Bulthuis and Christopher Hollowood. Syncona Portfolio is a wholly owned subsidiary of Syncona Holdings, and Syncona Holdings is a wholly controlled subsidiary of Syncona Limited, a publicly-listed company. Investment and voting decisions with respect to these shares are made by Syncona Portfolio, acting upon the recommendation of Roel Bulthuis and Christopher Hollowood, who comprise the investment committee of Syncona Investment Management Limited, also a subsidiary of Syncona Holdings. On November 16, 2023, Roel Bulthuis replaced Martin Murphy on the investment committee of Syncona Investment Management Limited. Each of these entities disclaims beneficial ownership except to the extent of its pecuniary interest therein, if any.

Item 5. Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following \Box .

Item 6. Ownership of more than Five Percent on Behalf of Another Person.

Not applicable.

Item 7. Identification and classification of the subsidiary which acquired the security being reported on by the parent holding company or control person.

Not applicable.

Item 8. Identification and classification of members of the group.

Not applicable.

Item 9. Notice of Dissolution of Group.

Not applicable.

Item 10. Certifications.

Not applicable.

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After reasonable 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.

Dated: February 13, 2024

SYNCONA PORTFOLIO LIMITED

By:/s/ Robert HutchinsonName:Robert HutchinsonTitle:Director

SYNCONA HOLDINGS LIMITED

By: /s/ Robert Hutchinson Name: Robert Hutchinson Title: Director

SYNCONA INVESTMENT MANAGEMENT LIMITED

By:/s/ Christopher HollowoodName:Christopher HollowoodTitle:CEO

SYNCONA LIMITED

By:/s/ Robert HutchinsonName:Robert HutchinsonTitle:Director

/s/ Roel Bulthuis Roel Bulthuis

/s/ Christopher Hollowood Christopher Hollowood

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Exhibit(s):

Exhibit 99.1: Joint Filing Statement

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AGREEMENT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the persons named below agree to the joint filing on behalf of each of them of a statement on Schedule 13G (including amendments thereto) with respect to the Ordinary Shares (represented by ADS, each of which represents one Ordinary Share) of Autolus Therapeutics plc and further agree that this Joint Filing Agreement be included as an Exhibit to such joint filings. It is understood and agreed that the joint filing of the Schedule 13G shall not be construed as an admission that the persons named herein constitute a group for purposes of Regulation 13D-G of the Securities Exchange Act of 1934, as amended.

Dated: February 13, 2024

SYNCONA PORTFOLIO LIMITED

By: /s/ Robert Hutchinson Name: Robert Hutchinson Title: Director

SYNCONA HOLDINGS LIMITED

By: /s/ Robert Hutchinson Name: Robert Hutchinson Title: Director

SYNCONA INVESTMENT MANAGEMENT LIMITED

 By:
 /s/ Christopher Hollowood

 Name:
 Christopher Hollowood

 Title:
 CEO

SYNCONA LIMITED

By:/s/ Robert HutchinsonName:Robert HutchinsonTitle:Director

/s/ Roel Bulthuis Roel Bulthuis

/s/ Christopher Hollowood Christopher Hollowood