

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D/A

Under the Securities Exchange Act of 1934
(Amendment No. 5)*

Enzo Biochem, Inc.
(Name of Issuer)

Common Stock, \$0.01 par value
(Title of Class of Securities)

294100102
(CUSIP Number)

Kevin A. McGovern, Esq.
c/o Harbert Discovery Fund, LP
2100 Third Avenue North, Suite 600
Birmingham, AL 35203
(205) 987-5577

with a copy to:

Eleazer Klein, Esq.
Schulte Roth & Zabel LLP
919 Third Avenue
New York, New York 10022
(212) 756-2000

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

February 5, 2020
(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(e), Rule 13d-1(f) or Rule 13d-1(g), check the following box. []

(Page 1 of 15 Pages)

* 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 disclosures provided in a prior cover page.

The information required on 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).

1	NAME OF REPORTING PERSON Harbert Discovery Fund, LP	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS WC	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 1,915,027
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 1,915,027
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 1,915,027	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 4.03%	
14	TYPE OF REPORTING PERSON PN	

1	NAME OF REPORTING PERSON Harbert Discovery Fund GP, LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 1,915,027
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 1,915,027
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 1,915,027	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 4.03%	
14	TYPE OF REPORTING PERSON OO	

1	NAME OF REPORTING PERSON Harbert Discovery Co-Investment Fund I, LP	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS WC	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 3,705,654
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 3,705,654
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 3,705,654	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 7.79%	
14	TYPE OF REPORTING PERSON PN	

1	NAME OF REPORTING PERSON Harbert Discovery Co-Investment Fund I GP, LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 3,705,654
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 3,705,654
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 3,705,654	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 7.79%	
14	TYPE OF REPORTING PERSON OO	

1	NAME OF REPORTING PERSON Harbert Fund Advisors, Inc.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Alabama	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 5,620,681
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 5,620,681
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 5,620,681	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 11.82%	
14	TYPE OF REPORTING PERSON IA, CO	

1	NAME OF REPORTING PERSON Harbert Management Corporation	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Alabama	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 5,620,681
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 5,620,681
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 5,620,681	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 11.82%	
14	TYPE OF REPORTING PERSON CO	

1	NAME OF REPORTING PERSON Jack Bryant	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States of America	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 5,620,681
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 5,620,681
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 5,620,681	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 11.82%	
14	TYPE OF REPORTING PERSON IN	

1	NAME OF REPORTING PERSON Kenan Lucas	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States of America	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 5,620,681
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 5,620,681
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 5,620,681	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 11.82%	
14	TYPE OF REPORTING PERSON IN	

1	NAME OF REPORTING PERSON Raymond Harbert	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States of America	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 5,620,681
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 5,620,681
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 5,620,681	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 11.82%	
14	TYPE OF REPORTING PERSON IN	

1	NAME OF REPORTING PERSON Fabian Blank	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Germany	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER 10,280
	8	SHARED VOTING POWER -0-
	9	SOLE DISPOSITIVE POWER 10,280
	10	SHARED DISPOSITIVE POWER -0-
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 10,280	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) Less than 0.1%	
14	TYPE OF REPORTING PERSON IN	

The following constitutes Amendment No. 5 to the Schedule 13D filed by the undersigned (the "Amendment No. 5"). This Amendment No. 5 amends the Schedule 13D, filed with the Securities and Exchange Commission on April 8, 2019 as specifically set forth herein.

Item 4. PURPOSE OF TRANSACTION

Item 4 of the Schedule 13D is hereby amended and supplemented by the addition of the following:

On February 5, 2020, the Discovery Fund and Discovery Co-Investment Fund filed a complaint in the United States District Court for the Southern District of New York titled Harbert Discovery Fund, LP v. Enzo Biochem, Inc. Pursuant to their complaint, Discovery Fund and Discovery Co-Investment Fund are seeking, amongst other things, a declaration that the Issuer's proposal to increase the size of the Board without obtaining the supermajority vote required in the Issuer's amended certificate of incorporation is invalid. The complaint alleges, among other things, that Enzo has engaged in brazen acts of entrenchment and misuse of the corporate machinery in an effort to keep founder and executive Barry Weiner on the Board and frustrate the will of shareholders after it had become clear that Weiner would not be re-elected.

SIGNATURES

After reasonable inquiry and to the best of his or its knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

Date: February 7, 2020

Harbert Discovery Fund, LP

By: Harbert Discovery Fund GP, LLC,
its General Partner

By: Harbert Management Corporation,
its Managing Member

By: /s/ John McCullough
Executive Vice President and
General Counsel

Harbert Discovery Fund GP, LLC

By: Harbert Management Corporation,
its Managing Member

By: /s/ John McCullough
Executive Vice President and
General Counsel

Harbert Discovery Co-Investment Fund I, LP

By: Harbert Discovery Co-Investment Fund I
GP, LLC, its General Partner

By: Harbert Management Corporation,
its Managing Member

By: /s/ John McCullough
Executive Vice President and
General Counsel

Harbert Discovery Co-Investment Fund I GP, LLC

By: Harbert Management Corporation,
its Managing Member

By: /s/ John McCullough
Executive Vice President and
General Counsel

Harbert Fund Advisors, Inc.

By: /s/ John McCullough
Executive Vice President and
General Counsel

Harbert Management Corporation

By: /s/ John McCullough
Executive Vice President and
General Counsel

By: /s/ Jack Bryant
Jack Bryant

By: /s/ Kenan Lucas
Kenan Lucas

By: /s/ Raymond Harbert
Raymond Harbert

Fabian Blank

/s/ Fabian Blank
Fabian Blank