

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

SCHEDULE 13D
(Amendment No. 5)*
Under the Securities Exchange Act of 1934

AQUABOUNTY TECHNOLOGIES, INC.

(Name of Issuer)

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

UO387J108
(CUSIP Number)

Third Security, LLC
1881 Grove Avenue
Radford, Virginia 24141
Attention: Marcus E. Smith, Esq.
(540) 633-7900

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

Copy to:
Intrexon Corporation
Attention: Legal
20374 Seneca Meadows Parkway
Germantown, Maryland 20876
(301) 556-9809

February 13, 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 which is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(b)(3) or (4), check the following box .

NOTE: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

* 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	NAMES OF REPORTING PERSONS RANDAL J. KIRK	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS PF	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 14,251,753
	8	SHARED VOTING POWER 0
	9	SOLE DISPOSITIVE POWER 14,251,753
	10	SHARED DISPOSITIVE POWER 0
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 14,251,753	
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) 44.6%	
14	TYPE OF REPORTING PERSON IN	

1	NAMES OF REPORTING PERSONS THIRD SECURITY, LLC I.R.S. IDENTIFICATION NO.: 54-1923091	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF GROUP	
	(a) <input type="checkbox"/>	(b) <input checked="" type="checkbox"/>
3	SEC USE ONLY	
4	SOURCE OF FUNDS WC	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E)	
	<input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Virginia	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 14,049,193
	8	SHARED VOTING POWER 0
	9	SOLE DISPOSITIVE POWER 14,049,193
	10	SHARED DISPOSITIVE POWER 0
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 14,049,193	
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) 44.0%	
14	TYPE OF REPORTING PERSON OO – limited liability company	

1	NAMES OF REPORTING PERSONS TS AQUACULTURE LLC I.R.S. IDENTIFICATION NO.: 84-3478741	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS WC	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Virginia	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 8,239,199
	8	SHARED VOTING POWER 0
	9	SOLE DISPOSITIVE POWER 8,239,199
	10	SHARED DISPOSITIVE POWER 0
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 8,239,199	
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) 25.8%	
14	TYPE OF REPORTING PERSON OO – limited liability company	

1	NAMES OF REPORTING PERSONS TS BIOTECHNOLOGY HOLDINGS, LLC I.R.S. IDENTIFICATION NO.: 84-4504203	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF GROUP	
	(a) <input type="checkbox"/>	(b) <input checked="" type="checkbox"/>
3	SEC USE ONLY	
4	SOURCE OF FUNDS WC	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E)	
	<input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Virginia	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 5,175,000
	8	SHARED VOTING POWER 0
	9	SOLE DISPOSITIVE POWER 5,175,000
	10	SHARED DISPOSITIVE POWER 0
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 5,175,000	
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) 16.2%	
14	TYPE OF REPORTING PERSON CO	

This Amendment No. 5 (the “Amendment”) amends and supplements the Statement on Schedule 13D, dated January 18, 2017 and filed on January 20, 2017, as amended by Amendment No. 1, dated July 24, 2017 and filed on July 26, 2017, as amended by Amendment No. 2 dated January 17, 2018 and filed on January 19, 2018, as amended by Amendment No. 3 dated October 24, 2018 and filed on October 29, 2018, and as amended by Amendment No. 4 dated October 29, 2019 and filed on October 31, 2019 (the “Original Schedule 13D”), relating to the Common Stock, par value \$0.001 per share (the “Common Stock”), of AquaBounty Technologies, Inc., a Delaware corporation (the “Company”). Mr. Randal J. Kirk (“Mr. Kirk”), Third Security, LLC, a Virginia limited liability company that is controlled by Mr. Kirk (“Third Security”), TS AquaCulture LLC, a Virginia limited liability company that is managed by Third Security (“TS AquaCulture”), and TS Biotechnology Holdings, LLC, a Virginia limited liability company that is managed by Third Security (“TS Biotechnology” and, together with Mr. Kirk, Third Security, and TS AquaCulture, the “Reporting Persons”) are filing this Amendment to disclose the purchase by TS Biotechnology of 5,175,000 shares of Common Stock in an underwritten public offering of 10,350,000 shares of Common Stock, including the exercise in full of the underwriters’ overallotment option, at a price per share of \$1.50, that closed on February 13, 2020 (the “Offering”).

Item 3. Source and Amount of Funds or Other Consideration.

Item 3 of the Original Schedule 13D is hereby amended and supplemented as follows:

On February 13, 2020, TS Biotechnology utilized its working capital to purchase 5,175,000 shares of Common Stock in the Offering, for an aggregate purchase price of \$7,762,500, or \$1.50 per share.

Item 4. Purpose of Transaction.

Item 4 of the Original Schedule 13D is hereby amended and supplemented as follows:

The information set forth in Items 3 and 6 is incorporated herein by reference.

TS Biotechnology acquired the shares disclosed hereunder for investment purposes.

Other than as disclosed herein, as of the date of this Amendment, none of the Reporting Persons have present plans or proposals which would result in:

- (a) The acquisition by any person of additional securities of the Company, or the disposition of securities of the Company;
 - (b) An extraordinary corporate transaction such as a merger, reorganization or disposition, involving the Company or any of its subsidiaries;
 - (c) A sale or transfer of a material amount of assets of the Company or any of its subsidiaries;
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- (d) Any change in the present board of directors or management of the Company, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board;
- (e) Any material change in the present capitalization or dividend policy of the Company;
- (f) Any other material change in the Company's business or corporate structure, including but not limited to, if the Company is a registered closed-end investment company, any plans or proposals to make any changes in its investment policy for which a vote is required by Section 13 of the Investment Company Act of 1940;
- (g) Changes in the Company's charter, bylaws or instruments corresponding thereto or other actions which may impede the acquisition of control of the Company by any person;
- (h) Causing a class of securities of the Company to be delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association;
- (i) A class of equity securities of the Company becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Securities Exchange Act of 1934; or
- (j) Any action similar to any of those actions enumerated above.

Item 5. Interest in Securities of the Issuer.

The information contained on the cover pages to this Statement and the information set forth or incorporated in Items 2, 3, 4 and 6 is incorporated herein by reference.

(a) and (b) See Items 11 and 13 of the cover pages to this Statement for the aggregate number of shares and percentage of issued and outstanding shares of Common Stock owned by the Reporting Persons. The percentage ownership is calculated based on 21,605,322 shares of Common Stock issued and outstanding as of November 4, 2019, as disclosed by the Company in its Quarterly Report on Form 10-Q for the period ended September 30, 2019, increased by 10,350,000 shares issued in connection with the Offering, including the exercise in full of the underwriters' overallotment option.

Reporting Person	Amount of Common Stock Beneficially Owned	Percent of Class	Sole Power to Vote or Direct the Vote	Shared Power to Vote or Direct the Vote	Sole Power to Dispose or to Direct the Disposition	Shared Power to Dispose or to Direct the Disposition
Randal J. Kirk	14,251,753 ⁽¹⁾	44.6%	14,251,753 ⁽¹⁾	--	14,251,753 ⁽¹⁾	--
Third Security, LLC	14,049,193 ⁽²⁾	44.0%	14,049,193 ⁽²⁾	--	14,049,193 ⁽²⁾	--
TS AquaCulture LLC	8,239,199 ⁽²⁾	25.8%	8,239,199 ⁽²⁾	--	8,239,199 ⁽²⁾	--
TS Biotechnology Holdings, LLC	5,175,000 ⁽²⁾	16.2%	5,175,000 ⁽²⁾	--	5,175,000 ⁽²⁾	--

- ⁽¹⁾ Includes 202,560 shares of Common Stock held by various entities that are controlled by Mr. Kirk but not managed by Third Security, none of which beneficially owns more than 5.0% individually.

(2) Mr. Kirk could be deemed to have indirect beneficial ownership of the shares of Common Stock directly held by entities managed by Third Security, including TS AquaCulture and TS Biotechnology.

(c) Except as set forth in this Statement, none of the Reporting Persons have engaged in any transactions in the Common Stock in the past 60 days.

(d)-(e) Not Applicable

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

The Reporting Persons' responses to Items 3, 4 and 5 are incorporated herein by reference.

Item 7. Material to be Filed as Exhibits.

Exhibit 1 Joint Filing Agreement, dated as of February 18, 2020, by and between Mr. Kirk, Third Security, TS AquaCulture, and TS Biotechnology

SIGNATURES

After reasonable inquiry and to the best of their knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct.

Date: February 18, 2020

/s/ Randal J. Kirk

Randal J. Kirk

THIRD SECURITY, LLC

By: /s/ Randal J. Kirk

Randal J. Kirk
Manager

TS AQUACULTURE LLC

By: /s/ Randal J. Kirk

Randal J. Kirk
Manager

TS BIOTECHNOLOGY HOLDINGS, LLC

By: /s/ Randal J. Kirk

Randal J. Kirk
Manager

EXHIBIT INDEX

[Exhibit 1](#) Joint Filing Agreement, dated as of February 18, 2020, by and between Mr. Kirk, Third Security, TS AquaCulture and TS Biotechnology

Exhibit 1

Joint Filing Agreement

In accordance with Rule 13d-1(k) promulgated under the Securities Exchange Act of 1934, as amended, the persons named below agree to the joint filing on behalf of each of them a Statement on Schedule 13D (including amendments thereto) with regard to the common stock of AquaBounty Technologies, Inc., and further agree that this Joint Filing Agreement be included as an exhibit to such joint filings. In evidence thereof, the undersigned, being duly authorized, hereby execute this agreement as of the 18th day of February, 2020.

/s/ Randal J. Kirk

Randal J. Kirk

THIRD SECURITY, LLC

By: /s/ Randal J. Kirk

Randal J. Kirk

Manager

TS AQUACULTURE LLC

By: /s/ Randal J. Kirk

Randal J. Kirk

Manager

TS BIOTECHNOLOGY HOLDINGS, LLC

By: /s/ Randal J. Kirk

Randal J. Kirk

Manager
