ACCURAY INC Form SC 13G February 14, 2017

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

	ACCURAY INCORPORATED
(Nam	e of Issuer)
Commo	n Stock, par value \$0.001 per share
(Title of Cl	ass of Securities)
	004397105
(CUSI	P Number) September 16, 2016
(Date of Event Which	Requires Filing of this Statement)
Check the appropriate box to designat Schedule is filed:	e the rule pursuant to which this
[X] Rule 13d-1(b)	
[_] Rule 13d-1(c)	
[_] Rule 13d-1(d)	
initial filing on this form with res	ll be filled out for a reporting person's pect to the subject class of securities, taining information which would alter cover page.
Act of 1934 ("Act") or otherwise subj	nder of this cover page shall not be of Section 18 of the Securities Exchange ect to the liabilities of that section 1 other provisions of the Act (however,
CUSIP NO. 004397105	13G Page 2 of 8 Pages
(1) NAMES OF REPORTING PERSONS. I.R.S. IDENTIFICATION NOS. OF	
Renaissance Technologies LLC	26-0385758
(2) CHECK THE APPROPRIATE BOX IF A M	EMBER OF A GROUP (SEE INSTRUCTIONS):

	(b) [_]			
(3)	SEC USE ONLY			
(4)	CITIZENSHIP OR PLACE OF O	RGANIZATION		
	Delaware 			
	NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:		(5)	SOLE VOTING POWER
				4,207,500
			(6)	SHARED VOTING POWER
			(- /	0
			(7)	SOLE DISPOSITIVE POWER
				4,207,500
			(8)	SHARED DISPOSITIVE POWER
		. ,	0	
(9)	AGGREGATE AMOUNT BENEFIC	TAILY OWNED BY FAC	H REI	PORTING DERSON
()	AGONDONIE AROUNI DENDIIC		11 111	IONTING LENGON
		4,207,500		
(10)	CHECK BOX IF THE AGGREGA (SEE INSTRUCTIONS)	IE AMOUNI IN ROW (9) E.	CLUDES CERTAIN SHARES
(11)	PERCENT OF CLASS REPRES	ENTED BY AMOUNT IN	ROW	(9)
		5.15 %		
(12)	TYPE OF REPORTING PERSON	(SEE INSTRUCTIONS)	
	IA	D		
		Page 3 of 8 pag	es 	
	IP NO. 004397105	13G		Page 3 of 8 Page
(1)	NAMES OF REPORTING PERSO		NS (1	ENTITIES ONLY).
	RENAISSANCE TECHNOLOGIES	HOLDINGS CORPORAT	ION	13-3127734
(2)	CHECK THE APPROPRIATE BO (a) [_] (b) [_]			
(3)	SEC USE ONLY			

Delaware	
	(5) SOLE VOTING POWER
NUMBER OF SHARES BENEFICIALLY OWNED	4,207,500
BY EACH REPORTING PERSON WITH:	(6) SHARED VOTING POWER
	0
	(7) SOLE DISPOSITIVE POWER
	4,207,500
	(8) SHARED DISPOSITIVE POWER
	0
(9) AGGREGATE AMOUNT BENEFICIALLY OWNED	BY EACH REPORTING PERSON
4,207,500	
(10) CHECK BOX IF THE AGGREGATE AMOUNT IN (SEE INSTRUCTIONS) [_]	I ROW (9) EXCLUDES CERTAIN SHARES
(11) PERCENT OF CLASS REPRESENTED BY AMO	OUNT IN ROW (9)
5.15 %	
(12) TYPE OF REPORTING PERSON (SEE INSTRU	JCTIONS)
Page 3 of	: 8 pages
CUSIP NO. 004397105 1	.3G Page 4 of 8 Page:
Item 1.	
Item 1. (a) Name of Issuer	
(a) Name of Issuer	ecutive Offices.
(a) Name of Issuer ACCURAY INCORPORATED	
(a) Name of IssuerACCURAY INCORPORATED(b) Address of Issuer's Principal Exe1310 Chesapeake Terrace, Sunnyva	
ACCURAY INCORPORATED (b) Address of Issuer's Principal Exe	

(b) Address of Principal Business Office or, if none, Residence.

The principal business address of the reporting persons is:

800 Third Avenue New York, New York 10022

(c) Citizenship.

RTC is a Delaware limited liability company, and RTHC is a Delaware corporation.

(d) Title of Class of Securities.

Common Stock, par value \$0.001 per share

(e) CUSIP Number.

004397105

Page 4 of 8 pages

- Item 3. If this statement is filed pursuant to Rule 13d-1 (b) or 13-d-2 (b) or (c), check whether the person filing is a:
- (a) [_] Broker or dealer registered under section 15 of the Act.
- (b) [_] Bank as defined in section 3(a)(6) of the Act.
- (c) [_] Insurance Company as defined in section 3(a)(19) of the Act.
- (d) [_] Investment Company registered under section 8 of the Investment Company Act.
- (e) [x] Investment Adviser in accordance with Sec.240.13d-1(b)(1)(ii)(E).
- (f) [_] Employee Benefit Plan or Endowment Fund in accordance with Sec. 240.13d-1 (b) (1) (ii) (F).
- (g) [_] Parent holding company, in accordance with Sec.240.13d-1(b)(1)(ii)(G).
- (h) $[_]$ A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act.
- (i) [_] A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940.
- (j) $[_]$ Group, in accordance with Sec.240.13d-1(b)(1)(ii)(J).

Item 4. Ownership.

(a) Amount beneficially owned.

RTC: 4,207,500 shares

RTHC: 4,207,500 shares, comprising the shares beneficially owned by RTHC, because of RTHC's majority ownership of RTC.

(b) Percent of Class.

RTC: 5.15 % RTHC: 5.15 %

- (c) Number of shares as to which the person has:
 - (i) sole power to vote or to direct the vote:

RTC: 4,207,500 RTHC: 4,207,500

(ii) Shared power to vote or to direct the vote: 0

(iii) sole power to dispose or to direct the disposition of:

RTC: 4,207,500 RTHC: 4,207,500

(iv) Shared power to dispose or to direct the disposition of:

RTC: 0 RTHC: 0

Page 5 of 8 pages

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: [_]

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

Certain funds and accounts managed by RTC have the right to receive dividends and proceeds from the sale of the securities which are the subject of this report.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company.

Not applicable

Item 8. Identification and Classification of Members of the Group.

Not applicable

Item 9. Notice of Dissolution of a Group.

Not applicable

Page 6 of 8 pages

Item 10. Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

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.

Date: February 14, 2017

Renaissance Technologies LLC

By: Mark Silber

Executive Vice President

Renaissance Technologies Holdings Corporation

By: Mark Silber
Vice President

Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (See $18\ U.S.C.\ 1001$).

Page 7 of 8 Pages

EXHIBIT 99.1

AGREEMENT REGARDING JOINT FILING

UNDER RULE 13D-1(K) OF THE EXCHANGE ACT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, each of the undersigned agrees to the filing on behalf of each of a Statement on Schedule 13G, and all amendments thereto, with respect to the shares of Common Stock, par value \$0.001 per share of ACCURAY INCORPORATED.

Date: February 14, 2017

Renaissance Technologies LLC

By: Mark Silber

Executive Vice President

Renaissance Technologies Holdings Corporation

By: Mark Silber Vice President

Page 8 of 8 Pages