FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL 3235-0287 Estimated average burden hours per response: 0.5

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* FALLON LYNNETTE C						2. Issuer Name and Ticker or Trading Symbol AXCELIS TECHNOLOGIES INC ACLS									all app Direc	,	ng Pei	10% O	wner
(Last) (First) (Middle) C/O AXCELIS TECHNOLOGIES, INC. 108 CHERRY HILL DRIVE					3. Date of Earliest Transaction (Month/Day/Year) 08/27/2021									A	belov E	v) xecutive V	/P, H	below) IR/Legal	
(Street) BEVERLY MA 01915				4. If A	4. If Amendment, Date of Original Filed (Month/Day/Year)								i. Indiv. ine) X	′					
(City)	(City) (State) (Zip) Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned																		
1. Title of Security (Instr. 3) 2. Transaction Date (Month/Day/					on	2A. Deemed Execution Date,			3. Transa Code (8)	ction	4. Securities Acquired (A) of Disposed Of (D) (Instr. 3, 4) Amount (A) or Pric			5. Amo Securit Benefic Owned Report Transa		ount of 6. 0 foicially (D) d Following (I)		wnership n: Direct or Indirect nstr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
Common Stock 08/27/20					021	21			S		6,252	 		58 ⁽¹⁾	58,480(2)			D	
	Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)																		
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	tercise (Month/Day/Year) if any to of rative (Month/Day/Year)		ition Date,	Code (8)	Transaction Code (Instr.		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		e Exercition D		7. Title and Amount of Securities Underlying Derivative Security (Ins 3 and 4)		Der Sec (Ins	rice of ivative surity ttr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)		10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)

Explanation of Responses:

- 1. The price reported in Column 4 is a weighted-average price. These shares were sold in multiple transactions at prices ranging from \$50.50 to \$50.76, inclusive. The reporting person undertakes to provide to Axcelis Technologies, Inc., any security holder of Axcelis Technologies, Inc., or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price.
- 2. Of the shares held as of August 27, 2021, 36,921 were issuable on vesting of restricted stock units granted to the executive under the 2012 Equity Incentive Plan and are subject to forfeiture.

Remarks:

Lynnette C. Fallon

08/27/2021

** Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.