

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

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

1. Name and Address of Reporting Person* <u>Okazaki Jason A</u> (Last) (First) (Middle) C/O ASSEMBLY BIOSCIENCES, INC. 331 OYSTER POINT BLVD, FOURTH FLOOR (Street) SOUTH SAN FRANCISCO CA 94080 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>ASSEMBLY BIOSCIENCES, INC. [ASMB]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>Chief Operating Officer</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>03/29/2022</u>	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	03/29/2022		A		31,250 ⁽¹⁾	A	\$0.00	95,883	D	
Common Stock	03/30/2022		S ⁽²⁾		1,269	D	\$2.1674 ⁽³⁾	94,614	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	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 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)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Stock Option (right to buy)	\$2.3	03/29/2022		A		125,000		(4)	03/29/2032	Common Stock	125,000	\$0.00	125,000	D	
Performance-based Restricted Stock Units	(5)	03/29/2022		A		31,250		(5)	03/29/2027	Common Stock	31,250	\$0.00	31,250	D	

Explanation of Responses:

- Grant of restricted stock units. The restricted stock units vest in four approximately equal installments, assuming continuous service on each vesting date, as follows: March 29, 2023; March 29, 2024; March 29, 2025; and March 29, 2026.
- The sale reported on this Form 4 was effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person and represents shares sold to cover tax withholding obligations in connection with the vesting of restricted stock units.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$2.10 to \$2.25, inclusive. The reporting person undertakes to provide the Issuer, any security holder of the Issuer, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within.
- Grant of stock options. The stock options vest over four years, assuming continuous service on each vesting date, as follows: 25% vest on the first anniversary of the date of grant, March 29, 2023; and the remaining 75% vest in 36 approximately equal monthly installments, with the options becoming fully vested on March 29, 2026.
- Each performance-based restricted stock unit ("RSU") represents a contingent right to receive one share of the Issuer's common stock. The shares are earned if either of two trading price metrics are met (each a "Stock Metric") either on or before the second or on or before the fourth anniversary of the grant date, as applicable. If a Stock Metric is met on or before the first anniversary of the grant date, then 50% of the RSUs vest on the first anniversary of the grant date and the remainder will vest on the second anniversary of the grant date. If a Stock Metric is achieved after the first anniversary of the grant date and on or before the fourth anniversary of the grant date, then 50% of the RSUs vest on the date that the Stock Metric is achieved and the remaining 50% of the RSUs vest on the first anniversary of the initial vesting date. Special vesting provisions apply in the case of a change in control transaction.

Remarks:

/s/ John O. Gunderson, as Attorney-in-Fact

03/31/2022

** 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.