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

#### SCHEDULE 13D/A

Under the Securities Exchange Act of 1934 (Amendment No. 4)\*

> TransEnterix, Inc. (Name of Issuer)

Common Stock, \$0.001 par value per share (Title of Class of Securities)

> 89366M102 (CUSIP Number)

Aisling Capital 888 Seventh Avenue, 12th Floor New York, NY 10106 (212) 651-6380 (Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

> May 3, 2017 (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 §§ 240.13d-1(e), 240.13d-1(g), 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 Rule 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		NAME OF REPORTING PERSON OR					
			CATION NO. OF ABOVE PERSON				
2	Aisling Cap						
2	CHECK II	1E AI	PPROPRIATE BOX IF A MEMBER OF A GROUP	(a) o (b) x			
3	SEC USE (	ONLY					
4	SOURCE (	OF FU	INDS				
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5	CHECK BO	OX IF	DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)	0			
6	CITIZENS	HIP C	OR PLACE OF ORGANIZATION				
	Delaware						
		7	SOLE VOTING POWER				
			10,335,819				
	BER OF	8	SHARED VOTING POWER				
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	BY EACH NG PERSON	9	SOLE DISPOSITIVE POWER				
	ITH		10,335,819				
		10	SHARED DISPOSITIVE POWER				
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11	AGGREGA	TE A	MOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
	10,335,819						
12	CHECK BO	OX IF	THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES	0			
13	PERCENT	OF C	CLASS REPRESENTED BY AMOUNT IN ROW (11)				
	7.0% (1)	7.0% (1)					
14	TYPE OF I	TYPE OF REPORTING PERSON					
	PN						
	1						

(1) All calculations of the percentages herein are based on an aggregate of 148,529,689 shares of Common Stock issued and outstanding as of May 3, 2017 (excluding any options, warrants, or other rights to acquire the Issuer's Common Stock), as reported in the Issuer's Form 424(b)(5) Prospectus Supplement filed with the Securities Exchange Commission (the "SEC") on May 1, 2017.

1			ORTING PERSON OR				
I.R.S. IDENTIFICATION NO. OF ABOVE PERSON							
			artners III, LP				
2	CHECK TH	IE AI	PPROPRIATE BOX IF A MEMBER OF A GROUP	(a) o (b) x			
3	SEC USE C	ONLY					
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5	CHECK BO	OX IF	DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)	0			
6	CITIZENS	HIP C	OR PLACE OF ORGANIZATION				
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		7	SOLE VOTING POWER				
			10,335,819				
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	WITH		10,335,819				
		10	SHARED DISPOSITIVE POWER				
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11	AGGREGA	TE A	MOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
	10,335,819						
12	CHECK BO	OX IF	THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES	0			
13	PERCENT	OF C	LASS REPRESENTED BY AMOUNT IN ROW (11)				
	7.0%	7.0%					
14	TYPE OF F	TYPE OF REPORTING PERSON					
	PN	PN					

1 NAME OF REPORTING PERSON OR						
	I.R.S. IDENTIFICATION NO. OF ABOVE PERSON					
2			Partners III LLC PPROPRIATE BOX IF A MEMBER OF A GROUP	(2) 2		
2	CHECK II	1E AI	PPROPRIATE BOX IF A MEMBER OF A GROUP	(a) o (b) x		
3	SEC USE O	ONLY	,			
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5	CHECK BO	OX IF	DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)	0		
6	CITIZENS	CITIZENSHIP OR PLACE OF ORGANIZATION				
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		7	SOLE VOTING POWER			
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	IBER OF	8	SHARED VOTING POWER			
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	WITH		10,335,819			
		10	SHARED DISPOSITIVE POWER			
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11	AGGREGA	TE A	MOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
	10,335,819					
12	CHECK BO	OX IF	THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES	0		
13	PERCENT	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)				
	7.0%					
14	TYPE OF H	REPO	RTING PERSON			
	00	00				

1	NAME OF REPORTING PERSON OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON					
	Steve Elms					
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP			(a) o (b) x		
3	SEC USE C	ONLY				
4	SOURCE C	)F FU	INDS			
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5	CHECK BO	OX IF	DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)	0		
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	IBER OF	8	SHARED VOTING POWER			
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	D BY EACH ING PERSON	9	SOLE DISPOSITIVE POWER			
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		10	SHARED DISPOSITIVE POWER			
			10,335,819			
11	AGGREGA	TE A	MOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
	10,335,819					
12	CHECK BO	DX IF	THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES	0		
13	PERCENT	OF C	LASS REPRESENTED BY AMOUNT IN ROW (11)			
	7.0%					
14	TYPE OF F	REPO	RTING PERSON			
	IN	IN				

1 NAME OF REPORTING PERSON OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON							
2	Dennis Purcell CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP			(a) o (b) x			
3	SEC USE C	ONLY	· · · · · · · · · · · · · · · · · · ·				
4	SOURCE C	)F FU	INDS				
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5	CHECK BO	OX IF	DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)	0			
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		10	SHARED DISPOSITIVE POWER				
			10,335,819				
11	AGGREGA	TE A	MOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
	10,335,819						
12	CHECK BO	OX IF	THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES	0			
		<u> </u>					
13	PERCENT	OF C	LASS REPRESENTED BY AMOUNT IN ROW (11)				
14	7.0%						
14	TYPE OF F	(EPO	RTING PERSON				
	IN	IN					

1 NAME OF REPORTING PERSON OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON							
	Andrew Scl						
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP						
3	SEC USE C	ONLY					
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	00						
5	CHECK BO	OX IF	DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)	0			
6			OR PLACE OF ORGANIZATION				
	United State	es 7	SOLE VOTING POWER				
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NITIN	MBER OF	8	-0- SHARED VOTING POWER				
SF	HARES		10,335,819				
	EFICIALLY D BY EACH	9	SOLE DISPOSITIVE POWER				
	'ING PERSON WITH		-0-				
		10	SHARED DISPOSITIVE POWER				
			10,335,819				
11	AGGREGA	TE A	MOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
	10,335,819						
12	CHECK BO	OX IF	THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES	0			
13	PERCENT	OF C	LASS REPRESENTED BY AMOUNT IN ROW (11)				
	7.0%	7.0%					
14	TYPE OF F	REPO	RTING PERSON				
1	IN	IN					

#### Item 1. Security and Issuer.

This Amendment No. 4 to Schedule 13D (this "Statement") amends and supplements the Schedule 13D as previously filed by the undersigned Reporting Persons (as defined below) on September 13, 2013, and amended by Amendment No. 1 to the Schedule 13D, filed by the Reporting Persons on December 10, 2013, Amendment No. 2 to the Schedule 13D, filed by the Reporting Persons on April 23, 2014, and by Amendment No. 3 to the Schedule 13D, filed by the Reporting Persons on February 5, 2016, with respect to the Common Stock, \$0.001 par value (the "Common Stock"), of TransEnterix, Inc. (f/k/a SafeStitch Medical, Inc. and Cellular Technical Services Company, Inc.), a Delaware corporation (the "Issuer"). The principal executive office of the Issuer is located at 635 Davis Drive, Suite 300, Durham, North Carolina 27713.

#### Item 2. Identity and Background.

No material change.

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

Item 3 is hereby amended and supplemented as follows:

On May 3, 2017, the Issuer completed its underwritten public offering of an aggregate of 24,900,000 units (the "Units") each consisting of one share of Common Stock, one Series A warrant to purchase one share of Common Stock (the "Series A Warrants") and one Series B warrant to purchase 0.75 shares of Common Stock (the "Series B Warrants" and, together with the Series A Warrants, the "Warrants") pursuant to the underwriting agreement, dated April 28, 2017 (the "Underwriting Agreement"), included as Exhibit 2, with Stifel, Nicolaus & Company, Incorporated. Each of the Series A and Series B Warrants has an initial exercise price of \$1.00 per share.

Each Series A Warrant may be exercised at any time beginning on the date of issuance, and from time to time thereafter, through and including the first anniversary of the issuance date, unless terminated earlier as provided in the Series A Warrant. In the event the FDA provides clearance with respect to the Issuer's Senhance System 510(k) application, which was filed with the FDA in April 2017, the holders of Series A Warrants will have 10 business days after written notice to exercise, in whole or in part, their Series A Warrants. Any Series A Warrants that remain unexercised after such 10 business day period will expire. Each Series B Warrant may be exercised at any time beginning on the date of issuance and from time to time thereafter through and including the fifth anniversary of the issuance date. Each Series B Warrant may be exercised at any time beginning on the date of issuance and from time to time to time thereafter through and including the fifth anniversary of the issuance date.

The exercise prices and the number of shares issuable upon exercise of each of the Warrants are subject to adjustment upon the occurrence of certain events, including, but not limited to, stock splits or dividends, business combinations, sale of assets, similar recapitalization transactions, or other similar transactions. The exercise prices of each of the Warrants are subject to adjustment in the event that the Issuer issues or is deemed to issue shares of Common Stock for less than the then applicable exercise prices of each of the Warrants. The exercisability of the Warrants may be limited if, upon exercise, the holder or any of its affiliates would beneficially own more than 4.99% of the Common Stock. If, at any time Warrants are outstanding, any fundamental transaction occurs, as described in the Warrants and generally including any consolidation or merger into another corporation, the consummation of a transaction whereby another entity acquires more than 50% of the Issuer's outstanding voting stock, or the sale of all or substantially all of its assets, the successor entity must assume in writing all of the obligations to the Warrant holders. Additionally, in the event of a fundamental transaction, each Warrant holder will have the right to require the Issuer, or its successor, to repurchase the Warrants for an amount of cash equal to the Black-Scholes value of the remaining unexercised portion of such Warrants.

Aisling purchased 2,000,000 Units in the offering at a price of \$1.00 per Unit for an aggregate purchase price of \$2,000,000. The source of the purchase price for the Units was capital contributions from the partners of Aisling. No borrowed funds were used by Aisling to purchase the Units.

The Underwriting Agreement contains customary representations, warranties and agreements by the Issuer and customary conditions to closing, indemnification obligations of the Issuer and the Underwriters. The foregoing descriptions of the Underwriting Agreement, the Series A Warrants and the Series B Warrants do not purport to be complete, and are qualified in their entirety by reference to the form of each such document, which are filed as Exhibit 2, Exhibit 3 and Exhibit 4, respectively.

# Item 4. Purpose of Transaction.

Item 4 is hereby amended and supplemented as follows:

The acquisition reported on this Schedule 13D, as amended, was made for investment purposes. The Reporting Persons may acquire or dispose of additional securities or sell securities of the Issuer from time to time in the market or in private transactions. As described in Item 3 of this Schedule 13D, as amended, Aisling holds warrants to purchase an aggregate of 3,500,000 shares of Common Stock, and exercise of such warrants is limited by the terms of the warrants as described herein.

# Item 5. Interest in Securities of the Issuer.

Items 5(a), (b) and (c) are amended and restated in their entirety as follows:

"(a) The aggregate percentage of shares of Common Stock reported as owned by each Reporting Person is based on an aggregate of 148,529,689 shares of Common Stock issued and outstanding as of May 3, 2017 (excluding any options, warrants, or other rights to acquire the Issuer's Common Stock), as reported in the Issuer's Form 424(b)(5) Prospectus Supplement filed with the Securities Exchange Commission (the "SEC") on May 1, 2017. Based on calculations made in accordance with Rule 13d 3(d), the Reporting Persons beneficially own in the aggregate 10,335,819 shares of Common Stock, representing 7.0% of the total issued and outstanding shares of Common Stock.

Aisling Capital III, LP Aisling Capital Partners III, LP Aisling Capital Partners III LLC	Common Stock
Amount beneficially owned:	10,335,819
Percent of class:	
(i) Sole voting power	7.0%
(ii) Shared voting power	0
(iii) Sole dispositive power	7.0%
(iv) Shared dispositive power	0

0

Steve Elms Dennis Purcell Andrew Schiff	Common Stock
Amount beneficially owned:	10,335,819

Percent of class:

(i) Sole voting power	0
(ii) Shared voting power	7.0%
(iii) Sole dispositive power	0
(iv) Shared dispositive power	7.0%

(b)

(i) Each of Aisling, Aisling Partners and Aisling Partners GP may be deemed to have sole power to direct the voting and disposition of the 10,335,819 shares of Common Stock that may be deemed to be beneficially owned by the Reporting Persons.

Aisling Capital III, LP Aisling Capital Partners III, LP Aisling Capital Partners III LLC	Common Stock
Amount beneficially owned:	10,335,819
Percent of class:	
(i) Sole voting power	7.0%
(ii) Shared voting power	0
(iii) Sole dispositive power	7.0%

(iv) Shared dispositive power

(ii) By virtue of the relationships between and among the Reporting Persons described in Item 2 of this Schedule 13D, each of the Messrs. Elms, Purcell and Schiff may be deemed to share the power to direct the voting and disposition of the 10,335,819 shares of Common Stock beneficially owned by the Reporting Persons.

Steve Elms Dennis Purcell Andrew Schiff	Common Stock
Amount beneficially owned:	10,335,819
Percent of class:	
(i) Sole voting power	0
(ii) Shared voting power	7.0%
(iii) Sole dispositive power	0
(iv) Shared dispositive power	7.0%

(c) <u>Recent Transactions</u>. On May 3, 2017, the Issuer sold 24,900,000 Units in a public offering at a public offering price of \$1.00 per Unit. Aisling purchased 2,000,000 Units in the offering.

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

Item 6 is hereby amended and supplemented as follows:

The Warrants are represented by a warrant certificate, the material terms of which are described under Item 3. Such description is incorporated by reference herein.

#### Item 7. Material to Be Filed as Exhibits.

The following documents are filed as exhibits hereto:

- Exhibit 1: Statement Appointing Designated Filer dated as of September 13, 2013, as required by Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended (incorporated herein by reference to Exhibit 1 to Schedule 13D filed by the Reporting Persons on September 13, 2013).
- Exhibit 2: Underwriting Agreement dated as of April 28, 2017, by and between the Issuer and Stifel, Nicolaus & Company, Incorporated (incorporated by reference to Exhibit 1.1 to the Issuer's Current Report on Form 8-K filed with the SEC on April 28, 2017).
- Exhibit 3: Form of Series A Warrant (incorporated by reference to Exhibit 4.1 to the Issuer's Current Report on Form 8-K filed with the SEC on April 28, 2017).
- Exhibit 4: Form of Series B Warrant (incorporated by reference to Exhibit 4.2 to the Issuer's Current Report on Form 8-K filed with the SEC on April 28, 2017).

## 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: May 9, 2017

## AISLING CAPITAL III, LP

- By: Aisling Capital Partners III, LP General Partner
- By: Aisling Capital Partners III LLC General Partner
- By: /s/ Dennis Purcell
  Name: Dennis Purcell
  Title: Managing Member

# AISLING CAPITAL PARTNERS III, LP

- By: Aisling Capital Partners III LLC General Partner
- By: /s/ Dennis Purcell Name: Dennis Purcell Title: Managing Member

## AISLING CAPITAL PARTNERS III LLC

- By: /s/ Dennis Purcell
  Name: Dennis Purcell
  Title: Managing Member
- By: /s/ Steve Elms Steve Elms
- By: /s/ Dennis Purcell
  Dennis Purcell
- By: /s/ Andrew Schiff
  Andrew Schiff