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

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of May 2021

Commission File Number: 001-39137

AnPac Bio-Medical Science Co., Ltd.

(Registrant's name)

801 Bixing Street, Bihu County
Lishui, Zhejiang Province 323006
The People's Republic of China
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F. Form 20-F ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b) (1): ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b) (7): ☐

EXHIBIT INDEX

Exhibit Number	Description
Exhibit 99.1	Press Release
Exhibit 99.2	Key Items of Financial Results for First Quarter 2021

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AnPac Bio-Medical Science Co., Ltd.
(Registrant)

Date: May 27, 2021

By: /s/ Chris Chang Yu
Name: Dr. Chris Chang Yu
Title: Chairman of the Board of Directors and Chief Executive Officer

Exhibit 99.1

PRESS RELEASE

AnPac Bio Reports Strong First Quarter in 2021, with 137.2% Increase in Revenue and Record Number of Commercial Tests Completed

May 27, 2021

PHILADELPHIA, May 27, 2021 (GLOBE NEWSWIRE) — AnPac Bio-Medical Science Co., Ltd. ("AnPac Bio," the "Company" or "we") (NASDAQ: ANPC), a biotechnology company with operations in China and the United States, announced today its unaudited financial results for the first quarter ended March 31, 2021. The Company's financial statements and related financial information for the quarter ended March 31, 2021 are unaudited or have not been reviewed by the Company's independent registered accountant. These financial results could differ materially if they were reviewed by the Company's independent registered accountant.

Financial highlights for the First Quarter 2021

- Total revenue was RMB2.2 million (US$0.3 million) for the first quarter of 2021, an increase of 137.2% from RMB0.9 million for the first quarter of 2020.

- Gross profit margin was 58.4% for the first quarter of 2021, representing an increase of 25.7 % from 32.7% for the first quarter of 2020, primarily due to higher selling prices charged for CDA-based tests and improved operational efficiency as well as higher volume of CDA-based tests performed during the first quarter of 2021.

- The average selling price ("ASP") of CDA-based tests was RMB401.0(US$61.2) for the first quarter of 2021, an increase of RMB20.0, or 5.0% from RMB381.0 in the same period of 2020, primarily due to a broader product offering of more comprehensive multi-cancer detection tests at higher price points.

- Net loss was RMB29.3 million (US$4.5 million) for the first quarter of 2021, compared to a net loss of RMB21.2 million for the first quarter of 2020. The net loss for the first quarter of 2021 was mainly attributable to RMB3.2 million (US$0.5 million) changes in the fair value of the convertible debts, RMB3.9 million (US$0.6 million) of selling and marketing expenses, RMB3.4 million (US$0.5 million) of research and development expenses and RMB 19.2 million (US$2.9 million) of general and administrative expenses.

- Short-term debt was RMB22.4 million (US$3.4 million) as of March 31, 2021, an increase of 171.9% from RMB8.2 million at the end of last fiscal year (December 31, 2020). The increase in short-term debt was mainly due to issuance of additional convertible debentures with a fair value of USD$2.5 million.

    · As of March 31, 2021, the Company had cash and cash equivalents of RMB9.0 million (US$1.4 million), compared to RMB3.0 million as of December 31, 2020.

Business Highlights for the First Quarter of 2021

- The Company reached a record high number of commercial CDA tests for the 1st Quarter versus any previous Q1 in the Company's history

- The Company has developed and completed testing at the end of February 2021 of a new generation of multi-cancer detection sensor named CDA Pro Sensor (CDAPS) which is a technology breakthrough with improved performance over the previous generation cancer detection sensors in a number of areas, including detection signal stability, sensor device yield, and detection sensitivity and specificity. The Company expects that CDAPS will extend the competitiveness for AnPac in the space of cancer screening.

- On January 25, 2021, the National Medical Products Administration (NMPA), the regulatory agent for medical products in China, approved the Company to start registration testing of AnPac Bio's class III lung cancer auxiliary diagnosis medical device at its designated medical device testing laboratory, which is a major progress and step towards obtaining a Class III medical device registration certificate.

- The Company continued to receive validation on the efficacy of CDA testing through follow-up studies. As of March 31, 2021, AnPac Bio had contacted 23,857 individuals tested using CDA packages in China and received substantive feedback regarding health conditions and disease development from 14,127 individuals.

- As of March 31, 2021, the Company filed 237 patent applications globally, among which 142 patents had been granted, including 20 patents granted in the United States, 65 in greater China (including eight in Taiwan), and 57 in other countries and regions.

- The Company continued to build a cancer risk assessment database, which totaled approximately 222,200 samples as of March 31, 2021, including approximately 178,300 samples from commercial CDA-based tests and approximately 43,900 samples from research studies.

Dr. Chris Yu, AnPac Bio's Chairman and CEO commented: "We are very pleased with our strong Q1 performance results, including (1) a 137.2% in revenue increase over the same period last year, (2) development and final evaluations of our next generation of multi-cancer detection sensor technology which includes significant performance improvements, and (3) receiving approval from the National Medical Products Administration (NMPA) to start registration test of AnPac Bio's class III lung cancer auxiliary diagnosis medical device. We are going into Q2 with strong momentum. Our continued focus in completing our Class III medical device registration and our new product development pipeline is showing great progress. We have also worked closely with our customers and commercial partners to achieve accelerated revenue growth."

About AnPac Bio

AnPac Bio is a biotechnology company focused on early cancer screening and detection, with 142 issued patents as of March 31, 2021. With two certified clinical laboratories in China and one CLIA and CAP accredited clinical laboratory and one CLIA registered clinical laboratory in the United States, AnPac Bio performs a suite of cancer screening and detection tests, including CDA (Cancer Differentiation Analysis), bio-chemical, immunological, and genomics tests. According to Frost & Sullivan, AnPac Bio ranked third worldwide among companies offering next-generation early cancer screening and detection technologies in terms of the number of clinical samples for cancer screening and detection, based on approximately 41,700 clinical samples as of December 31, 2019. AnPac Bio's CDA technology platform has been shown in retrospective validation studies to be able to detect the risk of over 20 different cancer types with high sensitivity and specificity.

For more information, please visit: https://www.Anpacbio.com.

For investor and media inquiries, please contact:

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Safe Harbor Statement

This announcement contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements are made under the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995 and are relating to the Company's future financial and operating performance. The Company has attempted to identify forward-looking statements by terminologies including "believes," "estimates," "anticipates," "expects," "plans," "projects," "intends," "potential," "target," "aim," "predict," "outlook," "seek," "goal" "objective," "assume," "contemplate," "continue," "positioned," "forecast," "likely," "may," "could," "might," "will," "should," "approximately" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. These statements are based on current expectations, assumptions and uncertainties involving judgments about, among other things, future economic, competitive and market conditions and future business decisions, all of which are difficult or impossible to predict accurately and many of which are beyond the Company's control. These statements also involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results to be materially different from those expressed or implied by any forward-looking statement. Known and unknown risks, uncertainties and other factors include, but are not limited to, the implementation of our business model and growth strategies; trends and competition in the cancer screening and detection market; our expectations regarding demand for and market acceptance of our cancer screening and detection tests and our ability to expand our customer base; our ability to obtain and maintain intellectual property protections for our CDA technology and our continued research and development to keep pace with technology developments; our ability to obtain and maintain regulatory approvals from the NMPA, the FDA and the relevant U.S. states and have our laboratories certified or accredited by authorities including the CLIA; our future business development, financial condition and results of operations and our ability to obtain financing cost-effectively; potential changes of government regulations; general economic and business conditions in China and elsewhere; our ability to hire and maintain key personnel; our relationship with our major business partners and customers; and the duration of the coronavirus outbreaks and their potential adverse impact on the economic conditions and financial markets and our business and financial performance, such as resulting from reduced commercial activities due to quarantines and travel restrictions instituted by China, the U.S. and many other countries around the world to contain the spread of the virus. Additionally, all forward-looking statements are subject to the "Risk Factors" detailed from time to time in the Company's most recent Annual Report on Form 20-F and other filings with the U.S. Securities and Exchange Commission. Because of these and other risks, uncertainties and assumptions, undue reliance should not be placed on these forward-looking statements. In addition, these statements speak only as of the date of this press release and, except as may be required by law, the Company undertakes no obligation to revise or update publicly any forward-looking statements for any reason.

ANPAC BIO-MEDICAL SCIENCE CO., LTD.
UNAUDITED CONDENSED CONSOLIDATED BALANCE SHEETS
(Amounts in thousands of Renminbi ("RMB") and U.S. dollars ("US$"), except for number of shares and per share data)

	December 31, 2020	March 31, 2021	March 31, 2021
	RMB	RMB	US$
ASSETS		(Unaudited)	(Unaudited)
Current assets:			
Cash and cash equivalents	3,016	9,020	1,377
Advances to suppliers	5,588	5,295	808
Accounts receivable, net of allowance for doubtful accounts	7,792	4,443	678
Amounts due from related parties	1,277	3,773	576
Inventories	312	972	148
Other current assets	3,303	9,792	1,495
Total current assets	21,288	33,295	5,082
Property and equipment, net	19,267	19,183	2,928
Land use rights, net	1,166	1,159	177
Intangible assets, net	4,596	4,498	687
Goodwill	2,223	2,223	339
Long-term investments	883	805	123
Other assets	464	466	71
TOTAL ASSETS.	**49,887**	**61,629**	**9,407**
LIABILITIES AND SHAREHOLDERS' DEFICIT			
Current liabilities:			
Short-term debt	8,232	22,380	3,416
Accounts payable	2,127	687	105
Advance from customers	3,682	4,040	617
Amounts due to related parties	4,130	417	64
Accrued expenses and other current liabilities	25,353	22,192	3,387
Total current liabilities	43,524	49,716	7,589
Deferred tax liabilities	1,045	1,023	156
Other long-term liabilities	2,041	2,038	311
TOTAL LIABILITIES.	**46,610**	**52,777**	**8,056**
Commitments and contingencies			
Shareholders' deficit:			
Class A Ordinary shares ((US$0.01 par value per share; 70,000,000 shares authorized, 9,192,660 and 12,168,531 shares issued and outstanding as of December 31, 2020 and March 31, 2021, respectively)	618	811	124
Class B Ordinary shares ((US$0.01 par value per share; 30,000,000 authorized, 2,863,100 shares issued and outstanding as of December 31, 2020 and March 31, 2021)	191	191	29
Additional paid-in capital	354,295	390,527	59,606
Accumulated deficit	(356,951)	(385,980)	(58,912)
Accumulated other comprehensive income	4,795	3,191	487
Total AnPac Bio-Medical Science Co., Ltd. shareholders' equity	2,948	8,740	1,334
Non-controlling interests	329	112	17
Total shareholders' equity	**3,277**	**8,852**	**1,351**
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	**49,887**	**61,629**	**9,407**

ANPAC BIO-MEDICAL SCIENCE CO., LTD.
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Amounts in thousands of Renminbi ("RMB") and U.S. dollars ("US$"), except for number of shares and per share data)

	Three Months Ended March 31,		
	2020	2021	2021
	RMB	RMB	US$
Revenues:			
Cancer screening and detection tests	884	2,182	333
Physical checkup packages	37	3	0
Total revenues	**921**	**2,185**	**333**
Cost of revenues	(620)	(908)	(139)
Gross Profit	**301**	**1,277**	**194**
Operating expenses:			
Selling and marketing expenses	(3,596)	(3,863)	(590)
Research and development expenses	(2,937)	(3,356)	(512)
General and administrative expenses	(19,590)	(19,226)	(2,934)
Impairment of long-term investments	(820)	-	-
Loss from operations	**(26,642)**	**(25,168)**	**(3,842)**
Non-operating income and expenses:			
Interest expense, net	(266)	(624)	(95)
Foreign exchange gain (loss), net	118	(139)	(21)
Share of net loss in equity method investments	(21)	(77)	(12)
Other income (expense), net	537	(45)	(7)
Change in fair value of convertible debt	5,041	(3,215)	(491)
Loss before income taxes	**(21,233)**	**(29,268)**	**(4,468)**
Income tax benefit	22	22	3
Net loss	**(21,211)**	**(29,246)**	**(4,465)**
Net loss attributable to non-controlling interests	**(161)**	**(217)**	**(33)**
Net loss attributable to ordinary shareholders	**(21,050)**	**(29,029)**	**(4,432)**
Loss per share:			
Class A and B Ordinary shares - basic and diluted	(1.95)	(2.43)	(0.37)
Weighted average shares outstanding used in calculating basic and diluted loss per share			
Ordinary shares - basic and diluted	10,771,722	11,958,033	11,958,033
Other comprehensive income, net of tax:			
Fair value change relating to Company's own credit risk on convertible loan	(108)	-	-
Foreign currency translation differences	2,717	(1,604)	(245)
Total comprehensive loss	(18,602)	(30,850)	(4,710)
Total comprehensive loss attributable to non-controlling interests	(161)	(217)	(33)
Total comprehensive loss attributable to ordinary shareholders	(18,441)	(30,633)	(4,677)

Exhibit 99.2

Key Items of Financial Results for First Quarter 2021

Revenue

Total revenues increased by 137.2% to RMB2.2 million (US$0.3 million) for the first quarter of 2021 from RMB0.9 million for the first quarter of 2020, primarily due to a significant increase in our revenue from cancer screening and detection tests.

Cost of Revenues

Cost of revenues increased by 46.5% to RMB0.9 million (US$139,000) for the first quarter of 2021 from RMB0.6 million for the first quarter of 2020, primarily attributable to more CDA-based tests performed, which resulted in increased costs related to testing materials, blood sample taking and medical consumables.

Gross Profit and Gross Margin

Gross margin was 58.4% for the first quarter of 2021, representing a significant increase from 32.7% for the first quarter of 2020, primarily due to higher selling prices we charged for CDA-based tests and improved operational efficiency with higher volume of CDA-based tests performed during the first quarter of 2021 and less costs on outsourced biomarker-based tests.

Selling and Marketing Expenses

Selling and marketing expenses increased by 7.4% to RMB3.9 million (US$0.6 million) for the first quarter of 2021 from RMB3.6 million in the same period of 2020, primarily due to higher marketing expenses as a result of our enhanced marketing efforts.

Research and Development Expenses

Research and development expenses increased by 14.3% to RMB3.4 million (US$0.5 million) for the first quarter of 2021 from RMB2.9 million for the first quarter of 2020, primarily due to the increased staff costs and share-based compensation for our research and development personnel in the first quarter of 2021.

General and Administrative Expenses

General and administrative expenses decreased by 1.9% to RMB19.2 million (US$2.9 million) for the first quarter of 2021 from RMB19.6 million for the first quarter of 2020, primarily because we had listing-related professional fees for the first quarter of 2020 and did not have the same in the first quarter of 2021.

Change in fair value of convertible debts

The Company recognized the convertible debt at fair value. For the quarter ended March 31, 2021 and 2020, the Company recognized an aggregated unrealized loss of RMB3.2 million (US$0.5 million) and unrealized gain of RMB5.0 million, respectively, due to changes in fair value of the convertible debts.

Net Loss

Net loss increased to RMB29.2 million (US$4.5 million) for the first quarter of 2021, compared to RMB21.2 million for the first quarter of 2020. Basic and diluted loss per share was RMB2.43 (US$0.37) for the first quarter of 2021, compared to that of RMB1.95 for the first quarter of 2020.

Balance Sheet

As of March 31, 2021, the Company had cash and cash equivalents of RMB9.0 million (US$1.4 million), compared to RMB3.0 million as of December 31, 2020.