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 October 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): ☐

Explanatory Note:

The Registrant is filing this Report on Form 6-K to announce that its cancer differentiation analysis (CDA) technology has shown a strong correlation between CDA score and risk of cancer and diseases.

Attached as an exhibit to this Report on Form 6-K is the press release dated October 4, 2021.

EXHIBIT INDEX

Exhibit	Description
99.1	Press release dated October 4, 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: October 4, 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 Study Shows Strong Correlation between CDA Score and Risk of Cancer and Diseases

- ***Large Population Screening Study Reached Key Milestone with Over 2,000 Confirmed Cases***

Philadelphia, PA, October 4, 2021 – AnPac Bio-Medical Science Co., Ltd. (Nasdaq:ANPC, "AnPac Bio," the "Company" or "we"), a biotechnology company with operations in China and the United States focused on early cancer screening and detection, announced today it has achieved a significant milestone and positive result in its general population cancer risk assessment tests and subsequent follow-up study on enrolled individuals whom obtained further check-ups and diagnosis at healthcare providers using their cancer and disease diagnostic tools. As of September 30, 2021, healthcare providers have confirmed 2,067 cancer, pre-cancer, and disease cases, which includes 22 identified types of cancer, 25 identified types of pre-cancer, and multiple other related diseases. An initial analysis showed that confirmed cases are strongly correlated to CDA test score, confirming that the CDA test is an effective method to initially screen the population for risks associated with cancer.

AnPac Bio's follow-up study involved (a) enrolling high, medium, and low risk groups of individuals based on their CDA test scores following CDA testing of a large, asymptomatic population, (b) recommending enrolled individuals to obtain follow-up check-ups at healthcare providers, (c) following up with enrolled individuals via phone interviews, and (d) analyzing interview results and data. As of September 30, 2021, 14,806 individuals in the high, medium and low risk groups were contacted and interviewed, and 2,067 individuals were confirmed as cancer, pre-cancer or other disease patients. Based on an initial analysis of the most recent follow-up data and results, CDA technology is an effective initial screening tool for asymptomatic general population for multiple cancer types, pre-cancer types and other related diseases. The confirmed cancer and pre-cancer cases detected 22 types of cancer and 25 types of pre-cancer, including esophageal cancer and thyroid cancers that currently lack effective biomarkers for early screening and detection.

Distribution of high, medium, and low risk groups based on CDA tests

Clinical Status	High and Medium Risk Group	Low Risk Group
Confirmed cancer cases	99.1%	0.9%
Pre-cancer cases	93.3%	6.7%
Confirmed other disease cases	95.0%	5.0%

The top five confirmed cancer types and pre-cancer types are as follows:

Types of Cancer	**Number of patients**
Colorectal cancer	40
Lung cancer	32
Gastric cancer	27
Prostate cancer	24
Breast cancer	23
Types of pre-cancer	**Number of patients**
Thyroid nodule/benign tumor	230
Pulmonary nodule	179
Lesions of the breast/ Hyperplasia of breast glands	135
Hysteromyoma	93
Gastroduodenal diseases	83

The above data demonstrates that CDA technology is also very effective in finding pre-cancer diseases as confirmed pre-cancer cases are much higher than those of confirmed cancer cases, which is very attractive and meaningful for cancer prevention. However, the confirmed cases are highly likely to be under-reported because (a) only cases from individuals that we were able to successfully contact are recorded, (b) some enrolled subjects did not give full final diagnosis results when contacted, and (c) as an on-going follow-up study, more confirmed cases will likely be developed and recorded over time.

Developing a viable pre-cancer and early-stage cancer screening technology is critical to detect cancer early and to save patient lives. However, its development and progress has been relatively slow, despite decades of heavy investments and efforts by leading scientists and research groups. One of the key factors has been the lack of leading detection experts to develop sensitive technologies for low level signal collection and processing. AnPac Bio has built a unique team of physicists, and experts with extensive experience from semiconductor and AI-based computational analysis to build the unique CDA technology platform.

Over the past 12 years, AnPac Bio’s team has innovated and developed biophysics-based detection technology, in which biophysical properties of blood are detected and analyzed for early-stage cancer screening and detection. The Company has been a staunch champion of the concept of multi-cancer detection through developing its CDA technology. The measurement of biophysical properties for cancer detection can detect multiple cancer types earlier, more cost effectively, with higher sensitivity and specificity, and through relatively simple sample requirements and test procedures. These features make AnPac Bio’s CDA technology perfectly suited for screening general population for cancer affordably.

Dr. Chris Yu, CEO and Chairman of AnPac Bio commented: “We are very pleased to reach the milestone of confirming over 2,000 cases and to achieve significant validation of CDA technology for general population cancer and pre-cancer risk assessment. This is truly a breakthrough technology in catching multiple cancer and pre-cancer types earlier to prevent cancer and provide better patient outcomes. We are very proud of our contributions to the battle against cancer and we are contributing to save lives now. We are already making a significant impact in the fight again cancer through our innovative ideas (multi-cancer detection), technology development and finding potential cancer and pre-cancer earlier on a daily basis. We believe our CDA technology’s results speak for themselves and expect that public health agencies and organizations seeking the most promising tools for detecting cancer and pre-cancer earlier will look closely at AnPac Bio.”

About AnPac Bio

AnPac Bio is a biotechnology company focused on early cancer screening and detection, with 148 issued patents as of June 30, 2021. With one CLIA and CAP registered clinical laboratory in the United States and two certified clinical laboratories in China, AnPac Bio performs a suite of cancer screening and detection tests, including CDA (Cancer Differentiation Analysis), biochemical, immunological and genomics tests. According to a Frost & Sullivan’s report issued in 2020, 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 in 2019. The Company has a significant cancer screening and detection database consisting of approximately 43,900 clinical samples as of March 31, 2021. 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.

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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.