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

SCHEDULE 13G
Under the Securities Exchange Act of 1934

(Amendment No.)*

Gracell Biotechnologies Inc.

(Name of Issuer)

Ordinary Shares, par value US\$0.0001 per share
(Title of Class of Securities)

38406L103

(CUSIP Number)

January 7, 2021

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)

*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 the disclosures provided in a prior cover page.

The information required in 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 Temasek Holdings (Private) Limited	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP	(a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Singapore	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0
	6	SHARED VOTING POWER 49,509,702
	7	SOLE DISPOSITIVE POWER 0
	8	SHARED DISPOSITIVE POWER 49,509,702
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 49,509,702	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	<input type="checkbox"/>
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 15.1%*	
12	TYPE OF REPORTING PERSON HC	

* This percentage calculation is based on 327,815,996 Ordinary Shares outstanding, according to the Issuer's prospectus dated January 7, 2021.

1	NAME OF REPORTING PERSON Fullerton Management Pte Ltd	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP	(a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Singapore	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0
	6	SHARED VOTING POWER 49,509,702
	7	SOLE DISPOSITIVE POWER 0
	8	SHARED DISPOSITIVE POWER 49,509,702
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 49,509,702	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	<input type="checkbox"/>
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 15.1%*	
12	TYPE OF REPORTING PERSON HC	

* This percentage calculation is based on 327,815,996 Ordinary Shares outstanding, according to the Issuer's prospectus dated January 7, 2021

1	NAME OF REPORTING PERSON Temasek Life Sciences Private Limited	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP	(a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Singapore	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0
	6	SHARED VOTING POWER 49,509,702
	7	SOLE DISPOSITIVE POWER 0
	8	SHARED DISPOSITIVE POWER 49,509,702
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 49,509,702	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	<input type="checkbox"/>
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 15.1%*	
12	TYPE OF REPORTING PERSON HC	

* This percentage calculation is based on 327,815,996 Ordinary Shares outstanding, according to the Issuer's prospectus dated January 7, 2021.

1	NAME OF REPORTING PERSON TLS Beta Pte. Ltd.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP	(a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Singapore	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0
	6	SHARED VOTING POWER 49,509,702
	7	SOLE DISPOSITIVE POWER 0
	8	SHARED DISPOSITIVE POWER 49,509,702
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 49,509,702	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	<input type="checkbox"/>
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 15.1%*	
12	TYPE OF REPORTING PERSON CO	

* This percentage calculation is based on 327,815,996 Ordinary Shares outstanding, according to the Issuer's prospectus dated January 7, 2021.

ITEM 1**(a) Name of Issuer**

Gracell Biotechnologies Inc. (the "Issuer")

(b) Address of Issuer's Principal Executive Offices

Building 12, Block B, Phase II
Biobay Industrial Park, 218 Sangtian St., Suzhou Industrial Park
People's Republic of China

ITEM 2**(a) Names of Persons Filing**

(i) Temasek Holdings (Private) Limited ("Temasek")

(ii) Fullerton Management Pte Ltd ("FMPL")

(iii) Temasek Life Sciences Private Limited ("TLS")

(iv) TLS Beta Pte. Ltd. ("TLS Beta" and, together with Temasek, FMPL and TLS, the "Reporting Persons")

(b) Address of Principal Business Office or, if none, Residence

Each of the Reporting Persons:

60B Orchard Road
#06-18 Tower 2
The Atrium@Orchard
Singapore 238891

(c) Citizenship

Each of the Reporting Persons: Singapore

(d) Title of Class of Securities

Ordinary Shares, par value US\$0.0001 per share

(e) CUSIP Number

38406L103. This CUSIP number applies to the American depositary shares, each representing five Ordinary Shares of the Issuer.

ITEM 3 If this statement is filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

Not applicable.

ITEM 4 Ownership

Ownership information with respect to Temasek, FMPL, TLS and TLS Beta is incorporated by reference through items (5) through (9) and (11) of the cover page for each entity.

TLS Beta shares the power to vote and the power to dispose of 49,509,702 Ordinary Shares held directly by it with Temasek, FMPL and TLS. TLS Beta is wholly owned by TLS, which is wholly owned by FMPL, which is wholly owned by Temasek.

ITEM 5 Ownership of Five Percent or Less of a Class

Not applicable.

ITEM 6 Ownership of More than Five Percent on Behalf of Another Person

Not applicable.

ITEM 7 Identification and Classification of the Subsidiary which Acquired the Security Being Reported on by the Parent Holding Company or Control Person

Not applicable.

ITEM 8 Identification and Classification of Members of the Group

Not applicable.

ITEM 9 Notice of Dissolution of Group

Not applicable.

ITEM 10 Certifications

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

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.

January 15, 2021

TEMASEK HOLDINGS (PRIVATE) LIMITED

By: /s/ Andrew Ang Lye Whatt

Name: Andrew Ang Lye Whatt

Title: Authorised Signatory

FULLERTON MANAGEMENT PTE LTD

By: /s/ Gregory Tan

Name: Gregory Tan

Title: Director

TEMASEK LIFE SCIENCES PRIVATE LIMITED

By: /s/ Lim Siew Lee Sherlyn

Name: Lim Siew Lee Sherlyn

Title: Director

TLS BETA PTE. LTD.

By: /s/ Zahedah Abdul Rashid

Name: Zahedah Abdul Rashid

Title: Director

LIST OF EXHIBITS

<u>Exhibit No.</u>	<u>Description</u>
A	Joint Filing Agreement

Exhibit A

Joint Filing Agreement

In accordance with Rule 13d-1(k) promulgated under the U.S. Securities Exchange Act of 1934, as amended, the undersigned hereby agree to the joint filing with all other reporting persons on behalf of each of them of a statement on Schedule 13G (including amendments thereto) with respect to the Ordinary Shares, par value \$0.0001 per share, of Gracell Biotechnologies Inc., a Cayman Islands exempted company, and that this Agreement may be included as an Exhibit to such joint filing. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned hereby execute this Agreement as of January 15, 2021.

TEMASEK HOLDINGS (PRIVATE) LIMITED

By: /s/ Andrew Ang Lye Whatt

Name: Andrew Ang Lye Whatt

Title: Authorised Signatory

FULLERTON MANAGEMENT PTE LTD

By: /s/ Gregory Tan

Name: Gregory Tan

Title: Director

TEMASEK LIFE SCIENCES PRIVATE LIMITED

By: /s/ Lim Siew Lee Sherlyn

Name: Lim Siew Lee Sherlyn

Title: Director

TLS BETA PTE. LTD.

By: /s/ Zahedah Abdul Rashid

Name: Zahedah Abdul Rashid

Title: Director
