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

SCHEDULE 13D

Under the Securities Exchange Act of 1934

Gracell Biotechnologies Inc.

(Name of Issuer)

ORDINARY SHARES, par value US\$0.0001 per share

(Title of Class of Securities)

38406L103**

(CUSIP Number)

**OrbiMed Advisors LLC
OrbiMed Asia GP III, L.P.
OrbiMed Advisors III Limited
OrbiMed Genesis GP LLC
OrbiMed New Horizons GP LLC
OrbiMed Capital LLC**

**601 Lexington Avenue, 54th Floor
New York, NY 10022
Telephone: (212) 739-6400**

(Name, Address and Telephone Number of Person Authorized to
Receive Notices and Communications)

January 12, 2021

(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(f) or 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 §240.13d-7(b) 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.

****38406L103** is the CUSIP number for the American Depositary Shares traded on the Nasdaq Stock Market.

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).

CUSIP No. 38406L103

1	Names of Reporting Persons. OrbiMed Advisors LLC	
2	Check the Appropriate Box if a Member of a Group (See Instructions). (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC Use Only	
4	Source of Funds (See Instructions) AF	
5	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6	Citizenship or Place of Organization Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	Sole Voting Power 0
	8	Shared Voting Power 29,853,364 (1)
	9	Sole Dispositive Power 0
	10	Shared Dispositive Power 29,853,364 (1)
11	Aggregate Amount Beneficially Owned by Each Reporting Person 29,853,364 (1)	
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
13	Percent of Class Represented by Amount in Row (11) 9.1% (2)	
14	Type of Reporting Person (See Instructions) IA	

(1) These ordinary shares (the "Shares") of Gracell Biotechnologies Inc. (the "Issuer") are beneficially owned through American Depository Shares ("ADSs"). Each ADS represents 5 Shares.

(2) This percentage is calculated based upon 327,815,996 Shares outstanding, as set forth in the Issuer's Rule 424(b)(4) Prospectus filed with the Securities and Exchange Commission ("SEC") on January 8, 2021.

CUSIP No. 38406L103

1	Names of Reporting Persons. OrbiMed Asia GP III, L.P.	
2	Check the Appropriate Box if a Member of a Group (See Instructions). (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC Use Only	
4	Source of Funds (See Instructions) AF	
5	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) 0	
6	Citizenship or Place of Organization Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	Sole Voting Power 0
	8	Shared Voting Power 26,795,880 (1)
	9	Sole Dispositive Power 0
	10	Shared Dispositive Power 26,795,880 (1)
11	Aggregate Amount Beneficially Owned by Each Reporting Person 26,795,880 (1)	
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) 0	
13	Percent of Class Represented by Amount in Row (11) 8.2% (2)	
14	Type of Reporting Person (See Instructions) OO	

(1) These ordinary shares (the "Shares") of Gracell Biotechnologies Inc. (the "Issuer") are beneficially owned through American Depositary Shares ("ADSs"). Each ADS represents 5 Shares.

(2) This percentage is calculated based upon 327,815,996 Shares outstanding, as set forth in the Issuer's Rule 424(b)(4) Prospectus filed with the Securities and Exchange Commission ("SEC") on January 8, 2021.

CUSIP No. 38406L103

1	Names of Reporting Persons. OrbiMed Advisors III Limited	
2	Check the Appropriate Box if a Member of a Group (See Instructions). (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC Use Only	
4	Source of Funds (See Instructions) AF	
5	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) 0	
6	Citizenship or Place of Organization Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	Sole Voting Power 0
	8	Shared Voting Power 26,795,880 (1)
	9	Sole Dispositive Power 0
	10	Shared Dispositive Power 26,795,880 (1)
11	Aggregate Amount Beneficially Owned by Each Reporting Person 26,795,880 (1)	
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) 0	
13	Percent of Class Represented by Amount in Row (11) 8.2 (2)	
14	Type of Reporting Person (See Instructions) OO	

- (1) These ordinary shares (the "Shares") of Gracell Biotechnologies Inc. (the "Issuer") are beneficially owned through American Depositary Shares ("ADSs"). Each ADS represents 5 Shares.
- (2) This percentage is calculated based upon 327,815,996 Shares outstanding, as set forth in the Issuer's Rule 424(b)(4) Prospectus filed with the Securities and Exchange Commission ("SEC") on January 8, 2021.
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1	Names of Reporting Persons. OrbiMed Genesis GP LLC	
2	Check the Appropriate Box if a Member of a Group (See Instructions). (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC Use Only	
4	Source of Funds (See Instructions) AF	
5	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) 0	
6	Citizenship or Place of Organization Cayman Islands	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	Sole Voting Power 1,528,742 (1)
	8	Shared Voting Power 0
	9	Sole Dispositive Power 1,528,742 (1)
	10	Shared Dispositive Power 0
11	Aggregate Amount Beneficially Owned by Each Reporting Person 1,528,742 (1)	
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) 0	
13	Percent of Class Represented by Amount in Row (11) 0.5% (2)	
14	Type of Reporting Person (See Instructions) IA	

(1) These ordinary shares (the "Shares") of Gracell Biotechnologies Inc. (the "Issuer") are beneficially owned through American Depositary Shares ("ADSs"). Each ADS represents 5 Shares.

(2) This percentage is calculated based upon 327,815,996 Shares outstanding, as set forth in the Issuer's Rule 424(b)(4) Prospectus filed with the Securities and Exchange Commission ("SEC") on January 8, 2021.

CUSIP No. 38406L103

1	Names of Reporting Persons. OrbiMed New Horizons GP LLC	
2	Check the Appropriate Box if a Member of a Group (See Instructions). (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC Use Only	
4	Source of Funds (See Instructions) AF	
5	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) o	
6	Citizenship or Place of Organization Cayman Islands	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	Sole Voting Power 0
	8	Shared Voting Power 1,528,742 (1)
	9	Sole Dispositive Power 0
	10	Shared Dispositive Power 1,528,742 (1)
11	Aggregate Amount Beneficially Owned by Each Reporting Person 1,528,742 (1)	
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) o	
13	Percent of Class Represented by Amount in Row (11) 0.5% (2)	
14	Type of Reporting Person (See Instructions) OO	

(1) These ordinary shares (the "Shares") of Gracell Biotechnologies Inc. (the "Issuer") are beneficially owned through American Depositary Shares ("ADSs"). Each ADS represents 5 Shares.

(2) This percentage is calculated based upon 327,815,996 Shares outstanding, as set forth in the Issuer's Rule 424(b)(4) Prospectus filed with the Securities and Exchange Commission ("SEC") on January 8, 2021.

1	Names of Reporting Persons. OrbiMed Capital LLC	
2	Check the Appropriate Box if a Member of a Group (See Instructions). (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC Use Only	
4	Source of Funds (See Instructions) AF	
5	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) <input type="radio"/>	
6	Citizenship or Place of Organization Cayman Islands	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	Sole Voting Power 9,570,993 (1)
	8	Shared Voting Power
	9	Sole Dispositive Power 9,570,993 (1)
	10	Shared Dispositive Power
11	Aggregate Amount Beneficially Owned by Each Reporting Person 9,570,993 (1)	
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="radio"/>	
13	Percent of Class Represented by Amount in Row (11) 2.9% (2)	
14	Type of Reporting Person (See Instructions) OO	

- (1) These ordinary shares (the "Shares") of Gracell Biotechnologies Inc. (the "Issuer") are beneficially owned through American Depositary Shares ("ADSs"). Each ADS represents 5 Shares.
- (2) This percentage is calculated based upon 327,815,996 Shares outstanding, as set forth in the Issuer's Rule 424(b)(4) Prospectus filed with the Securities and Exchange Commission ("SEC") on January 8, 2021.

Item 1. Security and Issuer

This Schedule 13D (the “Statement”) relates to the ordinary shares, par value \$0.0001 per share (the “Shares”), of Gracell Biotechnologies Inc., an exempted company incorporated in the Cayman Islands (the “Issuer”), with its principal executive offices located at Building 12, Block B, Phase II, Biobay Industrial Park, 218 Sangtian St., Suzhou Industrial Park, People’s Republic of China. Certain Shares are represented by American Depositary Shares (“ADSs”), with each ADS representing 5 Shares. The ADSs are listed on the NASDAQ Global Select Market under the ticker symbol “GRCL”. Information given in response to each item shall be deemed incorporated by reference in all other items, as applicable.

In January 2019, the Issuer effected a reorganization in which its Series A Preferred Shares were exchanged for Series A Convertible Preferred Shares on a 1:10 basis (the “Reorganization”). References in this Statement to numbers of Shares give effect to the Reorganization.

On January 12, 2021, the Issuer completed its initial public offering pursuant to which the Issuer agreed to issue and sell to the participants 11,000,000 ADSs (the “IPO”). In addition, the Issuer granted the underwriters an option to purchase, at the public offering price less any underwriting discounts and commissions, up to an additional 1,650,000 Shares. The purchase price for each ADS was \$19.00. As a result of the IPO, the Issuer’s total number of outstanding Shares increased to 327,815,996.

Item 2. Identity and Background

(a) This Schedule 13D is being filed by OrbiMed Advisors LLC (“OrbiMed Advisors”), OrbiMed Asia GP III, L.P. (“OAP GP III”), OrbiMed Advisors III Limited (“Advisors III”), OrbiMed Genesis GP LLC (“Genesis GP”), OrbiMed New Horizons GP LLC (“ONH GP”), and OrbiMed Capital LLC (“OrbiMed Capital”) (collectively, the “Reporting Persons”).

(b) — (c), (f) OAP GP III, a Cayman Islands exempted limited partnership, is the general partner of a limited partnership, as more particularly described in Item 6 below. OAP GP III has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

Advisors III, a Cayman Islands exempted company, is the general partner of OAP GP III, as more particularly described in Item 6 below. Advisors III has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

Genesis GP, a limited liability company organized under the laws of Delaware, is the general partner of a limited partnership, as more particularly described in Item 6 below. Genesis GP has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

ONH GP, a limited liability company organized under the laws of Delaware, is the general partner of a limited partnership, as more particularly described in Item 6 below. ONH GP has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

OrbiMed Advisors, a limited liability company organized under the laws of Delaware and a registered investment adviser under the Investment Advisers Act of 1940, as amended, is the investment manager of a limited partnership, as more particularly described in Item 6 below and is the managing member of Genesis GP and ONH GP, as more particularly described in Item 6 below. OrbiMed Advisors has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

OrbiMed Capital, a limited liability company organized under the laws of Delaware and a registered investment adviser under the Investment Advisers Act of 1940, as amended, is the investment adviser of certain entities as more particularly described in Item 6 below. OrbiMed Capital has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

The directors and executive officers of OrbiMed Advisors, OAP GP III, Advisors III, Genesis GP, ONH GP, and OrbiMed Capital are set forth on Schedules I, II, III, IV, V, and VI, respectively, attached hereto. Schedules I, II, III, IV, V, and VI set forth the following information with respect to each such person:

- (i) name;
- (ii) business address;
- (iii) present principal occupation of employment and the name, principal business and address of any corporation or other organization in which such employment is conducted; and
- (iv) citizenship.

(d) — (e) During the last five years, neither the Reporting Persons nor any Person named in Schedules I through VI has been (i) convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

Item 3. Source and Amount of Funds or Other Consideration

In August 2017, OrbiMed Advisors, OAP GP III, and Advisors III, pursuant to their authority under the limited partnership agreement of OrbiMed OrbiMed Asia Partners III, L.P. ("OAP III"), as more particularly referred to in Item 6 below, caused OAP III to purchase 25,931,497 shares of Series A convertible redeemable preferred shares of the Issuer. In connection with the IPO, shares of Series A convertible redeemable preferred shares of the Issuer were subsequently converted (on the closing of the IPO) into Shares on a 1-for-1 basis.

In March 2020, OrbiMed Advisors, OAP GP III and Advisors III, pursuant to their authority under the limited partnership agreement of OAP III, as more particularly referred to in Item 6 below, caused OAP III to purchase 864,383 Shares of the Issuer.

In October 2020, OrbiMed Advisors and Genesis GP, pursuant to their authority under the limited partnership agreement of OrbiMed Genesis Master Fund, L.P. ("Genesis"), caused Genesis to purchase 1,528,742 shares of Series C convertible redeemable preferred shares of the Issuer. In connection with the IPO, shares of Series C convertible redeemable preferred shares of the Issuer were subsequently converted (on the closing of the IPO) into Shares on a 1-for-1 basis.

In October 2020, OrbiMed Advisors and ONH GP, pursuant to their authority under the limited partnership agreement of OrbiMed New Horizons Master Fund, L.P. ("New Horizons"), caused New Horizons to purchase 1,528,742 shares of Series C convertible redeemable preferred shares of the Issuer. In connection with the IPO, shares of Series C convertible redeemable preferred shares of the Issuer were subsequently converted (on the closing of the IPO) into Shares on a 1-for-1 basis.

In September 2020, OrbiMed Capital, as the investment advisor to each of The Biotech Growth Trust PLC ("BIOG") and OrbiMed Partners Master Fund Limited ("OPM"), as more particularly referred to in Item 6 below, caused BIOG to purchase 2,751,736 shares of Series C convertible redeemable preferred shares of the Issuer and OPMJ to purchase 5,503,473 shares of Series C convertible redeemable preferred shares of the Issuer. In connection with the IPO, shares of Series C convertible redeemable preferred shares of the Issuer were subsequently converted (on the closing of the IPO) into Shares on a 1-for-1 basis.

On and prior to the close of January 12, 2021, OrbiMed Capital, as the investment advisor to BIOG, caused BIOG to purchase 1,315,785 Shares in the IPO.

Upon the closing of the IPO, the Reporting Persons exchanged its Shares for ADSs at a ratio of one ADS per 5 shares.

The source of funds for such purchases was the working capital of OAP III, Genesis, New Horizons, OPM, and BIOG.

As a result of the transactions described in this Item 3, OAP GP III, as the general partner of OAP III, and Advisors III, as the general partner of OAP GP III, may each be deemed to be the beneficial owner of approximately 8.2% of the outstanding Shares. Genesis GP, as the general partner of Genesis, may be deemed to be the beneficial owner of 0.5% of the outstanding Shares. ONH GP, as the general partner of New Horizons, may be deemed to be the beneficial owner of 0.5% of the outstanding Shares. OrbiMed Advisors, as the investment manager of OAP III and as the managing member of Genesis GP and ONH GP, may be deemed to be the beneficial owner of approximately 9.1% of the outstanding Shares. OrbiMed Capital, as the investment advisor to BIOG and OPM, be deemed to be the beneficial owner of 2.9% of the outstanding Shares. None of the Reporting Persons have acquired or disposed of any additional Shares since January 12, 2021.

Item 4. Purpose of Transaction

This statement relates to the acquisition of Shares by the Reporting Persons. The Shares acquired by the Reporting Persons were acquired for the purpose of making an investment in the Issuer and not with the intention of acquiring control of the Issuer's business on behalf of the Reporting Persons' respective advisory clients.

The Reporting Persons from time to time intend to review their investment in the Issuer on the basis of various factors, including the Issuer's business, financial condition, results of operations and prospects, general economic and industry conditions, the securities markets in general and those for the Issuer's Shares in particular, as well as other developments and other investment opportunities. Based upon such review, the Reporting Persons will take such actions in the future as the Reporting Persons may deem appropriate in light of the circumstances existing from time to time. If the Reporting Persons believe that further investment in the Issuer is attractive, whether because of the market price of Shares or otherwise, they may acquire Shares or other securities of the Issuer either in the open market or in privately negotiated transactions. Similarly, depending on market and other factors, the Reporting Persons may determine to dispose of some or all of the Shares currently owned by the Reporting Persons or otherwise acquired by the Reporting Persons either in the open market or in privately negotiated transactions.

Except as set forth in this Schedule 13D, the Reporting Persons have not formulated any plans or proposals which relate to or would result in: (a) the acquisition by any person of additional securities of the Issuer or the disposition of securities of the Issuer, (b) an extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries, (c) a sale or transfer of a material amount of the assets of the Issuer or any of its subsidiaries, (d) any change in the present Board of Directors or management of the Issuer, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board, (e) any material change in the Issuer's capitalization or dividend policy of the Issuer, (f) any other material change in the Issuer's business or corporate structure, (g) any change in the Issuer's charter or bylaws or other instrument corresponding thereto or other action which may impede the acquisition of control of the Issuer by any person, (h) causing a class of the Issuer's securities to be deregistered or delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association, (i) a class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Act or (j) any action similar to any of those enumerated above.

Item 5. Interest in Securities of the Issuer

(a) — (b) As of the date of this filing, OAP III, a limited partnership organized under the laws of the Cayman Islands, holds 26,795,880 Shares, constituting approximately 8.2% of the issued and outstanding Shares. OAP GP III is the general partner of OAP III pursuant to the terms of the limited partnership agreement of OAP III, Advisors III is the general partner of OAP GP III pursuant to the terms of the limited partnership agreement of Advisors III, and OrbiMed Advisors is the investment manager of OAP III pursuant to the terms of the limited partnership agreement of OAP III. As a result, OAP GP III, Advisors III, and OrbiMed Advisors share power to direct the vote and disposition of the Shares held by OAP III and may be deemed directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of the Shares held by OAP III. OrbiMed Advisors exercises this investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and Jonathan T. Silverstein, each of whom disclaims beneficial ownership of the Shares held by OAP III.

As of the date of this filing, Genesis, a limited partnership organized under the laws of the Cayman Islands, holds 1,528,742 Shares constituting approximately 0.5% of the issued and outstanding Shares. Genesis GP is the general partner of Genesis, pursuant to the terms of the limited partnership agreement of Genesis, and OrbiMed Advisors is the managing member of Genesis GP, pursuant to the terms of the limited liability company agreement of Genesis GP. As a result, OrbiMed Advisors and OrbiMed Genesis share power to direct the vote and disposition of the Shares held by Genesis and may be deemed, directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of the Shares held by Genesis. OrbiMed Advisors exercises this investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and Jonathan T. Silverstein, each of whom disclaims beneficial ownership of the Shares held by Genesis.

As of the date of this filing, New Horizons, a limited partnership organized under the laws of the Cayman Islands, holds 1,528,742 Shares constituting approximately 0.5% of the issued and outstanding Shares. ONH GP is the general partner of New Horizons, pursuant to the terms of the limited partnership agreement of New Horizons, and OrbiMed Advisors is the managing member of ONH GP, pursuant to the terms of the limited liability company agreement of ONH GP. As a result, OrbiMed Advisors and ONH GP share power to direct the vote and disposition of the Shares held by New Horizons and may be deemed, directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of the Shares held by New Horizons. OrbiMed Advisors exercises this investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and Jonathan T. Silverstein, each of whom disclaims beneficial ownership of the Shares held by New Horizons.

In addition, OrbiMed Advisors, OAP GP III, Advisors III, Genesis GP, and ONH GP, pursuant to their authority under the limited partnership agreements of OAP III, Genesis, and New Horizons, caused OAP III, Genesis, and New Horizons to enter into the agreements referred to in Item 6 below.

As of the date of this filing, BIOG, a publicly-listed investment trust organized under the laws of England, holds 4,067,520 Shares constituting approximately 1.2% of the issued and outstanding Shares and OPM, an exempted company under the laws of Bermuda, holds 5,503,473 Shares constituting 1.7% of the issued and outstanding Shares. OrbiMed Capital is the investment advisor of BIOG and OPM. As a result, OrbiMed Capital has the power to direct the vote and disposition of the Shares held by BIOG and OPM and may be deemed directly or indirectly, including by reason of mutual affiliation, to be the beneficial owner of the Shares held by BIOG and OPM. OrbiMed Capital disclaims any beneficial ownership over the shares of the other Reporting Persons. OrbiMed Capital exercises this investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and Jonathan T. Silverstein, each of whom disclaims beneficial ownership of the Shares held by BIOG and OPM.

(c) Except as disclosed in Item 3, the Reporting Persons have not effected any transactions during the past sixty (60) days in any Shares.

(d) Not applicable.

(e) Not applicable.

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

In addition to the relationships between the Reporting Persons described in Items 2 and 5 above, OAP GP III is the general partner of OAP III, pursuant to the terms of the limited partnership agreement of OAP III and Advisors III is the general partner of OAP GP III pursuant to the terms of the limited partnership agreement of OAP GP III. Pursuant to this agreement and relationship, OAP GP III and Advisors III have discretionary investment management authority with respect to the assets of OAP III. Such authority includes the power to vote and otherwise dispose of securities held by OAP III. The number of outstanding Shares of the Issuer attributable to OAP III is 26,795,880 Shares. OAP GP III and Advisors III, pursuant to their authority under the limited partnership agreements of OAP III and Advisors III, respectively, may be considered to hold indirectly 26,795,880 Shares.

In addition to the relationships between the Reporting Persons described in Items 2 and 5 above, Genesis GP is the general partner of Genesis, pursuant to the terms of the limited partnership agreement of Genesis. Pursuant to this agreement and relationship, Genesis GP has discretionary investment management authority with respect to the assets of Genesis. Such authority includes the power to vote and otherwise dispose of securities held by Genesis. The number of outstanding Shares of the Issuer attributable to Genesis is 1,528,742. Genesis GP, pursuant to its authority under the limited partnership agreement of Genesis, may be considered to hold indirectly 1,528,742 Shares.

In addition to the relationships between the Reporting Persons described in Items 2 and 5 above, ONH GP is the general partner of New Horizons, pursuant to the terms of the limited partnership agreement of New Horizons. Pursuant to this agreement and relationship, ONH GP has discretionary investment management authority with respect to the assets of New Horizons. Such authority includes the power to vote and otherwise dispose of securities held by New Horizons. The number of outstanding Shares of the Issuer attributable to New Horizons is 1,528,742. ONH GP, pursuant to its authority under the limited partnership agreement of New Horizons, may be considered to hold indirectly 1,528,742 Shares.

In addition to the relationships between the Reporting Persons described in Items 2 and 5 above, OrbiMed Advisors is the managing member of ONH GP and Genesis GP, pursuant to the terms of the limited liability company agreements of ONH GP and Genesis GP, and OrbiMed Advisors is the investment manager of OAP III, pursuant to the terms of the limited partnership agreement of OAP III. Pursuant to these agreements and relationships, OrbiMed Advisors, OAP GP III, and Advisors III have discretionary investment management authority with respect to the assets of OAP III. OrbiMed Advisors and Genesis GP have discretionary investment management authority with respect to the assets of Genesis and OrbiMed Advisors and ONH GP have discretionary management authority with respect to the assets of New Horizons. Such authority includes the power of OAP GP III and Advisors III to vote and otherwise dispose of securities held by OAP III, the power of Genesis GP to vote and otherwise dispose of the securities held by Genesis, and the power of ONH GP to vote and otherwise dispose of the securities held by New Horizons. The number of outstanding Shares attributable to OAP III is 26,795,880 Shares, the number of Shares attributed to Genesis is 1,528,742 Shares, and the number of Shares attributed to New Horizons is 1,528,742 Shares. OrbiMed Advisors, pursuant to its authority under the terms of the limited liability company agreements of Genesis GP and ONH GP, as well as the limited partnership agreement of OAP III, may also be considered to hold indirectly 29,853,364 Shares.

OrbiMed Capital is the investment advisor to BIOG and OPM. OrbiMed Capital may be deemed to have voting and investment power over the securities held by BIOG and OPM. Such authority includes the power of OrbiMed Capital to vote and otherwise dispose of securities held by BIOG and OPM. The number of outstanding Shares attributable to BIOG is 4,067,520 Shares and number of outstanding Shares attributable to OPM is 5,503,473 Shares. OrbiMed Capital, as the investment advisor to BIOG and OPM may also be considered to hold indirectly 9,570,993 Shares.

David Guowei Wang (“Wang”), an employee of OrbiMed Advisors, is a member of the Board of Directors of the Issuer and, accordingly, OrbiMed Advisors, OAP GP III, Advisors III, Genesis GP, ONH GP, and OrbiMed Capital may have the ability to affect and influence control of the Issuer. From time to time, Wang may receive stock options or other awards of equity-based compensation pursuant to the Issuer’s compensation arrangements for non-employee directors. Pursuant to an agreement with OrbiMed Advisors, OAP GP III, and Advisors III, Wang is obligated to transfer any securities issued under any such stock options or other awards, or the economic benefit thereof, to OAP III, which will in turn ensure that such securities or economic benefits are provided to OAP III.

Shareholders Agreement

In addition, OAP III, Genesis, New Horizons, BIOG, OPM, and certain other stockholders of the Issuer entered into a Second Amended and Restated Shareholders Agreement with the Issuer (the “Shareholders Agreement”), dated as of October 20, 2020. Pursuant to the Shareholders Agreement and subject to the terms and conditions therein, the parties agreed that:

Demand Registration Rights

At any time beginning six months following the date of the effective date of the registration statement of the IPO, the holders of at least 20% of the registrable securities then outstanding of the Issuer may make a written request that the Issuer register some or all of their registrable securities, subject to certain specified conditions and exceptions, including that the aggregated gross offering price of such offering must exceed \$25 million. The Issuer is required to use commercially reasonable efforts to effect the registration and will pay all registration expenses, other than underwriting discounts and commissions, related to any demand registration. The Issuer is not obligated to effect more than two of these registrations.

Piggyback Registration Rights

Whenever the Issuer proposes to file a registration statement under the Securities Act, other than with respect to certain excluded registrations, OAP III, Genesis, New Horizons, BIOG, and OPM will be entitled to notice of the registration and have the right, subject to limitations that the underwriters may impose on the number of Shares included in the registration, to include the Shares held by them in the registration.

Form F-3 or Form S-3 Registration Rights

At any time after the Issuer is qualified to file a registration statement on Form F-3 or Form S-3 under the Securities Act, and subject to limitations and conditions specified in the Investors' Rights Agreement, holders of at least 5% of the registrable securities then outstanding may make a written request that the Issuer prepare and file a registration statement on Form S-3 covering their Shares, so long as the aggregate price to the public equal or exceeds \$2.5 million. The Issuer is not obligated to effect more than one of these Form F-3 or Form S-3 registrations in any 6-month period.

Lock-Up Agreement

Pursuant to the Shareholders Agreement, OAP III, Genesis, New Horizons, BIOG, and OPM agreed that they will not, during the period ending 180 days after the date of the IPO (the "Lock-Up Period"), directly or indirectly (1) sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, any Shares or securities convertible into or exercisable or exchangeable for Shares with respect to which they have or have acquired the power of disposition or (2) enter into any swap or other agreement that transfers, in whole or in part, the economic risk of ownership of any such Shares.

After the Lock-Up Period expires, OAP III's, Genesis', New Horizons', BIOG's, and OPM's Shares will be eligible for sale in the public market, subject to any applicable limitations under Rule 144 under the Securities Act, and other applicable U.S. securities laws.

The foregoing description of the Shareholders Agreement does not purport to be complete and is qualified in its entirety by reference to the full text of the Shareholders Agreement, which is filed as Exhibits 2 and incorporated herein by reference.

Item 7. Material to Be Filed as Exhibits

Exhibit	Description
1.	Joint Filing Agreement among OrbiMed Advisors LLC, OrbiMed Asia GP III, L.P., OrbiMed Advisors III Limited, OrbiMed Genesis GP LLC, OrbiMed New Horizons GP LLC, and OrbiMed Capital LLC.
2.	Second Amended and Restated Shareholders Agreement by and among the Issuer and each of the signatories thereto, dated as of October 20, 2020 (incorporated by reference to Exhibit 4.4 to the Issuer's Registration Statement on Form F-1 (SEC 333-251494), filed with the SEC on December 18, 2020).

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.

Dated: January 21, 2021

ORBIMED ADVISORS LLC

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Member

ORBIMED ASIA GP III, L.P.

By: ORBIMED ADVISORS III LIMITED, its general partner

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Director

ORBIMED ADVISORS III LIMITED

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Director

ORBIMED GENESIS GP LLC

By: ORBIMED ADVISORS LLC, its managing member

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Member of OrbiMed Advisors LLC

ORBIMED NEW HORIZONS GP LLC

By: ORBIMED ADVISORS LLC, its managing member

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Member of OrbiMed Advisors LLC

ORBIMED CAPITAL LLC

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Member

SCHEDULE I

The names and present principal occupations of each of the executive officers and directors of OrbiMed Advisors LLC are set forth below. Unless otherwise noted, each of these persons is a United States citizen and has a business address of 601 Lexington Avenue, 54th Floor, New York, NY 10022.

<u>Name</u>	<u>Position with Reporting Person</u>	<u>Principal Occupation</u>
Carl L. Gordon	Member	Member OrbiMed Advisors LLC
Sven H. Borho German and Swedish Citizen	Member	Member OrbiMed Advisors LLC
Jonathan T. Silverstein	Member	Member OrbiMed Advisors LLC
W. Carter Neild	Member	Member OrbiMed Advisors LLC
Geoffrey C. Hsu	Member	Member OrbiMed Advisors LLC
C. Scotland Stevens	Member	Member OrbiMed Advisors LLC
David P. Bonita	Member	Member OrbiMed Advisors LLC
Trey Block	Chief Financial Officer	Chief Financial Officer OrbiMed Advisors LLC

SCHEDULE II

The names and present principal occupations of each of the executive officers and directors of OrbiMed Capital LLC are set forth below. Unless otherwise noted, each of these persons is a United States citizen and has a business address of 601 Lexington Avenue, 54th Floor, New York, NY 10022.

<u>Name</u>	<u>Position with Reporting Person</u>	<u>Principal Occupation</u>
Carl L. Gordon	Member	Member OrbiMed Capital LLC
Sven H. Borho German and Swedish Citizen	Member	Member OrbiMed Capital LLC
Jonathan T. Silverstein	Member	Member OrbiMed Capital LLC
W. Carter Neild	Member	Member OrbiMed Capital LLC
Geoffrey C. Hsu	Member	Member OrbiMed Capital LLC
C. Scotland Stevens	Member	Member OrbiMed Capital LLC
David P. Bonita	Member	Member OrbiMed Capital LLC
Trey Block	Chief Financial Officer	Chief Financial Officer OrbiMed Capital LLC

SCHEDULE III

The business and operations of OrbiMed Asia GP III, L.P. are managed by the executive officers and directors of OrbiMed Advisors LLC, set forth in Schedule I attached hereto.

SCHEDULE IV

The business and operations of OrbiMed Advisors III Limited are managed by the executive officers and directors of OrbiMed Advisors LLC, set forth in Schedule I attached hereto.

SCHEDULE V

The business and operations of OrbiMed Genesis GP LLC are managed by the executive officers and directors of its managing member, OrbiMed Advisors LLC, set forth on Schedule I attached

SCHEDULE VI

The business and operations of OrbiMed New Horizons GP LLC are managed by the executive officers and directors of its managing member, OrbiMed Advisors LLC, set forth on Schedule I attached

EXHIBIT INDEX

Exhibit	Description
1.	Joint Filing Agreement among OrbiMed Advisors LLC, OrbiMed Asia GP III, L.P., OrbiMed Advisors III Limited, OrbiMed Genesis GP LLC, OrbiMed New Horizons GP LLC, and OrbiMed Capital LLC.
2.	Second Amended and Restated Shareholders Agreement by and among the Issuer and each of the signatories thereto, dated as of October 20, 2020 (incorporated by reference to Exhibit 4.4 to the Issuer's Registration Statement on Form F-1 (SEC 333-251494), filed with the SEC on December 18, 2020).

JOINT FILING AGREEMENT

The undersigned hereby agree that the Statement on Schedule 13D, dated January 21, 2021, with respect to the ordinary shares of Gracell Biotechnologies Inc., is filed on behalf of each of us pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended. Each of the undersigned agrees to be responsible for the timely filing of this Statement, and for the completeness and accuracy of the information concerning itself contained therein. 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 have executed this Agreement as of the 21st day of January 2021.

ORBIMED ADVISORS LLC

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Member

ORBIMED ASIA GP III, L.P.

By: ORBIMED ADVISORS III LIMITED, its general partner

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Director

ORBIMED ADVISORS III LIMITED

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Director

ORBIMED GENESIS GP LLC

By: ORBIMED ADVISORS LLC, its managing member

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Member of OrbiMed Advisors LLC

ORBIMED NEW HORIZONS GP LLC

By: ORBIMED ADVISORS LLC, its managing member

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Member of OrbiMed Advisors LLC

ORBIMED CAPITAL LLC

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Member
