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Filed pursuant to Rule 424(b)(5) Registration No. 333-248740

PROSPECTUS



Up to 2,857,254

Ordinary Shares

This prospectus relates to the resale, from time to time, by the selling shareholders identified in this prospectus, and any of their respective donees, pledgees, transferees, or other successors-in-interest, of up to 2,857,254 of our ordinary shares that are issuable pursuant to the terms of certain convertible notes due January 14, 2025 (the "Convertible Notes") and warrants issued to the holders of the Convertible Notes (the "Warrants"), as further described in this prospectus.

The number of ordinary shares being registered hereunder is comprised of: (i) 2,554,578 ordinary shares issuable upon conversion of the Convertible Notes, which Convertible Notes are convertible into shares of our ordinary shares at a conversion price of \$7.88 per share; and (ii) 302,676 ordinary shares issuable upon the exercise of the Warrants, which Warrants are exercisable for shares of our ordinary shares at an exercise price of \$7.88 per share. The number of ordinary shares registered by the Registrant represents a good faith estimate of the number of ordinary shares which will be issued upon conversion of the Convertible Notes, assuming for purposes hereof, that the Convertible Notes will accrue interest through January 14, 2025 at a rate of 8.2% per annum. If the Convertible Notes convert after the Registrant has paid some of the principal balance or accrued interest on the Convertible Notes, the actual number of shares issuable to the selling shareholders upon conversion of the Convertible Notes, if any, could be materially less than 2,554,578 shares of ordinary shares depending on the amount of principal and accrued but unpaid interest that is converted into shares of ordinary shares at the time. This presentation is not intended to constitute an indication or prediction of the date on which the selling shareholders will convertible Notes into ordinary shares, if at all.

We are registering the resale of our ordinary shares covered by this prospectus as required by a registration rights agreement we entered into as part of a private transaction involving the selling shareholders, as further described in this prospectus. We will not receive any of the proceeds from the sale of the ordinary shares by the selling shareholders.

The selling shareholders and their respective donees, pledgees, transferees or other successors-in-interest may offer the ordinary shares in one or more transactions at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices, or in trading markets for our ordinary shares. Additional information on the selling shareholders, and the times and manner in which they may offer and sell our ordinary shares under this prospectus, is provided under "Selling Shareholders" and "Plan of Distribution" in this prospectus.

Our ordinary shares are listed on the Nasdaq Global Market under the symbol "PRQR." On August 31, 2020, the last reported sale price of our ordinary shares on the Nasdaq Global Market was \$6.30 per share.

Investing in our securities involves risks. See the section entitled "Risk Factors" on page 7 of this prospectus.

Neither the Securities and Exchange Commission nor any state or other securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is September 18, 2020.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and any applicable prospectus supplement or free writing prospectus, including the documents that we incorporate by reference herein, includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the "Securities Act," and Section 21E of the Securities Exchange Act of 1934, as amended, or the "Exchange Act." For this purpose, any statements contained herein, other than statements of historical fact, including statements regarding: our clinical development plans or our future financial performance, our development programs, including timing, plans, results and therapeutic potential with respect to our product candidates, our business operations, including timing of commencing clinical trials and enrollment of patients therein, the expected impact of the COVID-19 on our business operations, including our research and development plans and timelines and the supply chain for our clinical and development programs; and any other statements about management's future expectations, beliefs, goals, plans or prospects constitute forward-looking statements. We may, in some cases, use words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "project," "should," "target," "will," "would" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including the risks described under the heading "Risk Factors" in this prospectus and our most recent annual report on Form 20-F, as well as any amendments thereto reflected in subsequent filings with the Securities and Exchange Commission, or the "SEC." If one or more of these factors materialize, or if any underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from any future results, performance or achievements expressed or implied by th

You should rely only on information contained, or incorporated by reference, in this prospectus, the registration statement of which this prospectus is a part, the documents incorporated by reference in this prospectus, and any applicable prospectus supplement or free writing prospectus and understand that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements. Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee future results, events, levels of activity, performance or achievement. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law. Before deciding to purchase our securities, you should carefully consider the risk factors included or incorporated herein by reference, in addition to the other information set forth in this prospectus, any accompanying prospectus supplement, any free writing prospectus and in the documents incorporated by reference.

You should rely only on the information provided in this prospectus and the accompanying prospectus supplement, as well as the information incorporated by reference. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any jurisdiction where the offer is not permitted. You should not assume that the information in this prospectus, any prospectus supplement or any documents incorporated by reference is accurate as of any date other than the date of the applicable document.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form F-3 that we filed with the SEC utilizing a "shelf" registration process. Under this shelf process, certain selling shareholders may from time to time sell the securities, as described in this prospectus, in one or more offerings. This prospectus does not contain all of the information set forth in the registration statement, certain parts of which are omitted in accordance with the rules and regulations of the SEC. Accordingly, you should refer to the registration statement and its exhibits for further information about us and our securities. Copies of the registration and its exhibits are on file with the SEC. Statements contained in this prospectus concerning the documents we have filed with the SEC are not intended to be comprehensive, and in each instance we refer you to a copy of the actual document filed as an exhibit to the registration statement or otherwise filed with the SEC.

When we sell securities, we will provide you with a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with any additional information described under the heading "Where You Can Find Additional Information" and "Incorporation Of Certain Information By Reference." The information contained in this prospectus and any supplement to this prospectus, or incorporated by reference herein, is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus or of any sale of our ordinary shares. Our business, financial condition, results of operations and prospects may have changed since those dates.

You should rely only on this prospectus, the information incorporated or deemed to be incorporated by reference in this prospectus and any free writing prospectus prepared by us or on our behalf. We have not authorized anyone to provide you with information that is in addition to or different from that contained or incorporated by reference in this prospectus. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Unless the context otherwise indicates, references in this prospectus to "we," "our," and "us" refer to ProQR Therapeutics N.V., a company organized under the laws of the Netherlands, and its consolidated subsidiaries. "ProQR" and "Axiomer" are our main trademarks. Other trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, trademarks and trade names in this prospectus may be referred to without the ® and TM symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent permissible under applicable law, their rights thereto.

Unless otherwise specified in this prospectus, translations from euros to U.S. dollars were made at a rate of \$1.1940 to €1.00, the official exchange rate quoted by the European Central Bank at the close of business on August 31, 2020.

No action is being taken in any in any jurisdiction outside the United States to permit a public offering of the securities or possession or distribution of this prospectus in that jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus applicable to that jurisdiction.

PROSPECTUS SUMMARY

The following summary provides a brief overview of the key aspects of ProQR Therapeutics N.V. and certain material terms of the securities that may be offered that are known as of the date of this prospectus. Before you decide to invest in our securities, you should carefully consider the risks and discussion of risks set forth under the heading "Item 3. Key Information—D. Risk Factors" in our Annual Report on Form 20-F for the year ended December 31, 2019, filed with the SEC on March 31, 2020, and the subsequent Annual Reports on Form 20-F and Reports of Foreign Private Issuer on Form 6-K that we file with the SEC. For a more complete understanding of the terms of a particular issuance of offered securities, and before making your investment decision, you should read the entire prospectus carefully, including the matters discussed under the heading "Risk Factors" in this prospectus and the documents referred to in "Where You Can Find Additional Information" for information about us, as well as our financial statements.

References in this prospectus to the terms "ProQR," "Company," "we," "us," "ours" or "our," or other similar terms mean ProQR Therapeutics N.V.

Overview

We are developing a broad pipeline of potentially life changing RNA therapies for inherited retinal diseases, a group of rare debilitating eye diseases for which there are currently no treatment options available. We believe our RNA platform based on intravitreal delivery may be suitable to repair defective RNA in the retina and stop progression or even reverse vision loss associated with the diseases. As we deepen our relationships with the community of people living with inherited retinal diseases, we believe we are well positioned to bring these medicines to patients independently, and are therefore preparing for commercialization, particularly in the Western world.

Beyond our clinical portfolio, we discovered and developed a novel proprietary RNA editing platform technology called Axiomer®. Axiomer's editing oligonucleotides, or EONs, are designed to recruit endogenous Adenosine Deaminases Acting on RNA, or ADAR, enzymes to make single nucleotide changes in the RNA in a highly specific and targeted manner at a desired location. We believe our Axiomer platform may be applicable to more than 20,000 disease-causing mutations.

We continuously evaluate opportunities for beneficial collaborations or partnerships to efficiently bring our medicines to patients. In addition, using our discovery engine that is designed to generate a broad pipeline of product candidates, we seek to enter into strategic partnerships for programs that we believe will benefit from such a partnership.

Implications of Being a Foreign Private Issuer

We report under the Exchange Act as a non-U.S. company with foreign private issuer status. As a foreign private issuer, we are not subject to the same requirements that are imposed upon U.S. domestic issuers by the SEC. Under the Exchange Act, we will be subject to reporting obligations that, in certain respects, are less detailed and less frequent than those of U.S. domestic reporting companies. For example, although we intend to report our financial results on a quarterly basis, we will not be required to issue quarterly reports, proxy statements that comply with the requirements applicable to U.S. domestic reporting companies, or individual executive compensation information that is as detailed as that required of U.S. domestic reporting companies. We will also have four months after the end of each fiscal year to file our annual reports with the SEC and will not be required to file current reports as frequently or promptly as U.S. domestic reporting companies. We may also present financial statements pursuant to IFRS instead of pursuant to U.S. GAAP. Furthermore, although the members of our management and supervisory boards will be required to notify the Dutch Authority for the Financial Markets of certain transactions they may undertake, including with respect to our ordinary shares, our officers, directors and principal shareholders will be exempt from the requirements to

report transactions in our equity securities and from the short-swing profit liability provisions contained in Section 16 of the Exchange Act. These exemptions and leniencies will reduce the frequency and scope of information and protections available to you in comparison to those applicable to a U.S. domestic reporting companies.

Furthermore, as a foreign private issuer, we are permitted to follow the corporate governance practices of our home country in lieu of certain provisions of the Nasdaq. We therefore follow Dutch corporate governance practices in lieu of certain Nasdaq corporate governance requirements to seek shareholder approval for a specified issuance of securities.

Company Information

Our company is registered with the Dutch Trade Register of the Chamber of Commerce (handelsregister van de Kamer van Koophandel) under number 54600790. Our corporate seat is in Leiden, the Netherlands, and our registered office is at Zernikedreef 9, 2333 CK Leiden, the Netherlands, and our telephone number is +31 88 166 7000. Our website address is www.proqr.com. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this prospectus, and you should not consider it part of this prospectus. Our website address is included in this document as an inactive textual reference only. Our ordinary shares are listed on the Nasdaq Global Market under the symbol "PRQR." If any other securities are to be listed or quoted on a securities exchange or quotation system, the applicable prospectus supplement will so state.

ProQR was formed in February 2012 by Daniel de Boer, Gerard Platenburg, the late Henri Termeer and Dinko Valerio. Mr. de Boer is a passionate and driven entrepreneur and has assembled an experienced team of successful biotech executives as co-founders and early investors. ProQR's team has extensive experience in discovery, development and commercialization of RNA therapeutics. We have received grants, loans and other funding from patient organizations and government institutions supporting our programs, including from the Foundation for Fighting Blindness. Our headquarters are located in Leiden, the Netherlands.

THE OFFERING

Ordinary shares offered by the selling shareholders

Up to 2,857,254 ordinary shares (representing the maximum shares issuable pursuant to the terms of the Convertible Notes and the Warrants).

shareholders

50,142,711 ordinary shares as of June 30, 2020.

Ordinary shares outstanding after this offering

Ordinary shares outstanding before this offering

Up to 52,999,965 ordinary shares (as more fully described in the notes following this table), assuming that the full amount of the registered securities are issued pursuant to the terms of the Convertible Notes and the Warrants.

Plan of distribution

The selling shareholders and their donees, pledgees, transferees or other successors-in-interest may offer the ordinary shares in one or more transactions at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices, or in trading markets for our ordinary shares. See "*Plan of Distribution*"

Use of proceeds

We will not receive any proceeds from the sale of the ordinary shares in this offering. However, if all of the Warrants were exercised for cash, we would receive gross proceeds of \$2,385,087. We currently intend to use such proceeds, if any, for general corporate purposes, which may include, but are not limited to, working capital, strategic acquisitions and other potential business development activities, ongoing research and development activities and capital expenditures. See "Use of Proceeds."

Risk factors

Investing in our securities involves a high degree of risk. Please read the information contained in and incorporated by reference under the heading "Risk Factors" in this prospectus, and under similar headings in the other documents that are filed after the date hereof and incorporated by reference into this prospectus, together with the other information included in or incorporated by reference into this prospectus, before deciding whether to invest in our securities.

Nasdaq Global Market symbol

PRQR

The number of ordinary shares expected to be outstanding after this offering and, unless otherwise indicated, the information in this prospectus are based on 50,142,711 ordinary shares outstanding as of June 30, 2020, plus an additional 2,857,254 ordinary shares offered by the selling shareholders upon the issuance of the ordinary shares in connection with the conversion of the Convertible Notes and the exercise of the Warrants, as applicable, and excludes:

• 2,761,105 ordinary shares that we issued to a Dutch foundation Stichting Bewaarneming Aandelen ProQR for the administration of option exercises under our equity incentive plans. Such shares are held by the aforementioned foundation until they are transferred to an optionee

upon the exercise of options. As of June 30, 2020, 6,838,884 options have been granted by us with a weighted average exercise price of \in 6.58 per share; and

1,172,924 treasury shares held by us, which had been reserved to transfer ordinary shares to optionees upon exercise of awards under our equity incentive plans as of June 30, 2020.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before investing in our securities, you should carefully consider the risks described below and in the "Risk Factors" section of our Annual Report on Form 20-F for the year ended December 31, 2019, filed with the SEC on March 31, 2020, as updated or superseded by the risks and uncertainties described under similar headings in the other documents that are filed after the date hereof and incorporated by reference into this prospectus, together with all of the other information contained in this prospectus and incorporated by reference herein, and any free writing prospectus that we may authorize for use in connection with this offering. Some of these factors relate principally to our business and the industry in which we operate. Other factors relate principally to your investment in our securities. The risks and uncertainties described therein and below are not the only risks facing us. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also materially and adversely affect our business and operations. If any of the matters included in the following risks were to occur, our business, financial condition, results of operations, cash flows or prospects could be materially and adversely affected. In such case, you may lose all or part of your investment. See the sections titled "Where You Can Find Additional Information" and "Incorporation of Certain Information By Reference" in this prospectus for additional information.

The terms of our loan and security agreement require us to meet certain operating covenants and place restrictions on our operating and financial flexibility. If we raise additional capital through debt financing, the terms of any new debt could further restrict our ability to operate our business.

In July 2020, we entered into a Loan and Security Agreement with certain lenders party thereto (the "Loan Agreement," as amended), that is secured by a lien covering all of our assets, other than our intellectual property. In August 2020, we entered into a Joinder and First Amendment to the Loan Agreement and Joinder to Registration Rights Agreement to expand our loan facility and accommodate the participation of an additional lender. The Loan Agreement contains customary affirmative covenants, negative covenants and events of default. Affirmative covenants include, among others, covenants requiring us to protect and maintain our intellectual property and comply with all applicable laws, deliver certain financial reports, maintain certain minimum cash and other financial covenants, and maintain insurance coverage. Negative covenants include, among others, covenants restricting us from transferring any part of our business or intellectual property, incurring additional indebtedness, engaging in mergers or acquisitions, repurchasing shares, paying dividends or making other distributions, making investments, and creating other liens on our assets, in each case subject to customary exceptions. If we raise any additional debt financing, the terms of such additional debt could further restrict our operating and financial flexibility. These restrictions may include, among other things, limitations on borrowing and specific restrictions on the use of our assets, as well as prohibitions on our ability to create liens, pay dividends, redeem capital stock or make investments, without the prior written consent of the lenders. If we default under the terms of the Loan and Agreement or any future debt facility, the lenders may accelerate all of our repayment obligations and take control of our pledged assets, potentially requiring us to renegotiate our agreement on terms less favorable to us or to immediately cease operations. Further, if we are liquidated, the lenders' right to repayment would be senior to the rights of the holders of our ordinary shares. The lenders could declare a default upon the occurrence of any event that they interpret as a material adverse effect as defined under the Loan Agreement. Any declaration by the lenders of an event of default could significantly harm our business and prospects and could cause the price of our ordinary shares to decline.

Repayment of the Convertible Notes, if they are not otherwise converted, will require a significant amount of cash, and we may not have sufficient cash resources to make payments on our indebtedness.

Our ability to pay the principal of and/or interest on the Convertible Notes depends on our cash position, which is subject to economic, financial, competitive and other factors beyond our control. We

may not have sufficient cash resources at the time of repayment to service the Convertible Notes or other future indebtedness. If we are unable to secure such cash resources, we may be required to adopt and implement one or more alternatives, such as selling assets, restructuring indebtedness or obtaining additional debt financing or equity financing on terms that may be onerous or highly dilutive. Our ability to refinance the Convertible Notes or other future indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations, including the Convertible Notes.

The issuance of ordinary shares upon conversion of the Convertible Notes and exercise of the Warrants could substantially dilute your investment and could impede our ability to obtain additional financing.

The Convertible Notes are convertible into and the Warrants are exercisable for shares of our ordinary shares and give the holders an opportunity to profit from a rise in the market price of our ordinary shares such that conversion or exercise thereof could result in dilution of the equity interests of our shareholders. We have no control over whether the holders will exercise their right to convert their Convertible Notes or exercise their Warrants. While the Convertible Notes are convertible at a fixed price of \$7.88 per share and the Warrants are exercisable at a fixed price of \$7.88 per share, both of which are higher than our current market price, we cannot predict the market price of our ordinary shares at any future date, and therefore, cannot predict whether the Convertible Notes will be converted or whether the Warrants will be exercised. The existence and potentially dilutive impact of the Convertible Notes and the Warrants may prevent us from obtaining additional financing in the future on acceptable terms, or at all.

DESCRIPTION OF THE TRANSACTION

Private Placement of Convertible Notes and Warrants

Loan Agreement and Convertible Notes

On July 14, 2020 (the "Closing Date"), we and our wholly-owned subsidiaries entered into the Loan Agreement. In August 2020, we entered into a Joinder and First Amendment to the Loan Agreement and Joinder to Registration Rights Agreement to expand our loan facility and accommodate the participation of an additional lender. The lenders under the Loan Agreement are referred to herein as the "selling shareholders."

Under the Loan Agreement, certain of the selling shareholders agreed to make available to us certain term loans in an aggregate principal amount of up to \$30.0 million, subject to funding in three tranches as follows: (a) on the Closing Date, a loan in the aggregate principal amount of \$10.0 million (the "Initial Loan"), (b) on and after the Closing Date until July 14, 2021, a loan in the aggregate principal amount of \$10.0 million (the "Credit Line"), and (c) on and after the Closing Date until February 14, 2022, a loan in the aggregate principal amount of \$10.0 million (the "Late Withdrawal Loan" and collectively with the Initial Loan and Credit Line, the "Initial Term Loans"). In addition, the Joinder and First Amendment to the Loan Agreement and Joinder to Registration Rights Agreement expanded the facility by an additional €15.0 million in aggregate principal amount to accommodate the participation in the facility by an additional lender. Such additional aggregate principal amount is divided equally into three tranches referred to herein as the "Incremental Initial Loan," the "Incremental Late Withdrawal Loan" and the "Incremental Credit Line" (collectively, the "Incremental Loans" and, together with the Initial Term Loans, the "Term Loans"), that may be drawn down on the same schedule as the Initial Term Loans described above. The obligations of the selling shareholders to fund the Term Loans are subject to certain conditions precedent, including our achievement of certain milestone as set forth in the Loan Agreement.

The maturity date of the Term Loans is 54 months after the Closing Date, with amortized payments commencing 24 months after the Closing Date in ten equal quarterly payments, unless accelerated pursuant to an event of default, as described below. All amounts outstanding under the Term Loans will be due and payable upon the earlier of the maturity date or the acceleration of the loans and commitments upon an event of default. The Term Loans bear an interest rate of 8.2% per annum based on a year consisting of 365 days. In addition, we are required to pay an unused line fee of 1.5% per annum under the Credit Line, Late Withdrawal Loan, Incremental Credit Line or Incremental Late Withdrawal Loan, as applicable.

After 18 months following the Closing Date, we may prepay, from time to time, an amount of not less than \$1.0 million or all of the then outstanding principal balance and all accrued and unpaid interest thereon, subject to at least five (5) business days prior written notice to the selling shareholders and the payment of a prepayment fee equal to 1.0% of the principal amount being prepaid. During the notice period, the selling shareholders may elect to convert such outstanding amounts into our ordinary shares on the conversion terms described in greater detail below.

Under the Loan Agreement, the selling shareholders may elect to convert the outstanding Term Loans into our ordinary shares at any time prior to repayment at a conversion price equal to \$7.88 per share, subject to certain adjustments as provided in the Loan Agreement (the "Conversion Price"). We also have the right to convert at any time all or any portion of the then outstanding Term Loans and all accrued and unpaid interest thereon into our ordinary shares at the Conversion Price, subject to fulfilment of certain conditions as set forth in the Loan Agreement, including that the closing price of our ordinary shares exceeding at least 1.5 times the conversion price for the specified period of trading days prior to conversion.

As security for our obligations under the Loan Agreement, we granted the selling shareholders a first priority security interest on all of our assets, excluding intellectual property, and a negative pledge on intellectual property.

The Loan Agreement contains customary affirmative covenants, negative covenants and events of default, as defined in the Loan Agreement, including covenants and restrictions that, among other things, require us to satisfy certain minimum cash and other financial covenants, and in certain circumstances restrict our ability to incur liens, incur additional indebtedness, engage in mergers and acquisitions, or make asset sales without the prior written consent of the selling shareholders. A failure to comply with these covenants could permit the selling shareholders to declare our obligations under the Loan Agreement, together with accrued interest and fees, to be immediately due and payable, plus any applicable additional amounts relating to a prepayment or termination, as described above.

Warrants

In connection with the entry into the Loan Agreement, we issued to the selling shareholders Warrants to purchase up to an aggregate of 302,676 ordinary shares at an exercise price exercise price equal to \$7.88 per share. The Warrants may be exercised, in whole or in part, at any time until the 5th anniversary of the Closing Date.

Under the Loan Agreement, we in the future may issue one or more additional Warrants under certain circumstances, including in connection with additional drawdowns of the facility.

Registration Rights Agreement

Concurrently with the execution of the Loan Agreement, we entered into a Registration Rights Agreement (the "Registration Rights Agreement") with certain of the selling shareholders pursuant to which we agreed to file and keep effective one or more registration statements with the SEC for the purpose of registering for resale the shares issuable upon conversion of the Term Loans and/or exercise of the Warrants. In August 2020, we entered into a Joinder and First Amendment to the Loan Agreement and Joinder to Registration Rights Agreement to expand our loan facility and accommodate the participation of an additional lender, pursuant to which such additional lender became party to the Registration Rights Agreement.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization on an actual basis as of June 30, 2020. The information in this table should be read in conjunction with and is qualified by reference to the financial information thereto and other financial information incorporated by reference into this prospectus.

| | As of June 30, 2020 (unaudited) (€ in thousands, except share and per share data) |
|--|---|
| Cash and cash equivalents | € 87,141 |
| Total debt: | |
| Lease liability | 46 |
| Borrowings | 5,555 |
| Total debt | 5,601 |
| Equity: | |
| Equity attributable to owners of the Company | 80,094 |
| Non-controlling interests | (526) |
| Total equity | 79,568 |
| Total capitalization | € 85,169 |

The table above excludes:

- 2,761,105 ordinary shares that we issued to a Dutch foundation named Stichting Bewaarneming Aandelen ProQR for the administration of option exercises under our equity incentive plans. Such shares are held by the aforementioned foundation until they are transferred to an optionee upon the exercise of options. As of June 30, 2020, 6,838,884 options have been granted by us with a weighted average exercise price of €6.58 per share; and
- 1,172,924 treasury shares held by us, which had been reserved to transfer ordinary shares to optionees upon exercise of awards under our equity incentive plans as of June 30, 2020.

USE OF PROCEEDS

All shares of our ordinary shares offered by this prospectus are being registered for the account of the selling shareholders. We will not receive any proceeds from the sale of our ordinary shares offered hereby. However, if all of the Warrants were exercised for cash, we will receive proceeds of \$2,385,087. We currently intend to use such proceeds, if any, for general corporate purposes, which may include, but are not limited to, working capital, strategic acquisitions and other potential business development activities, ongoing research and development activities and capital expenditures. If the selling shareholders elect to exercise the Warrants by means of a "cashless exercise," as is allowed pursuant to the terms of the Warrants, we will not receive any proceeds upon exercise of the Warrants.

The selling shareholders will pay all underwriting discounts, selling commissions and expenses incurred by them for brokerage, accounting, tax or legal services or any other expenses incurred by the selling shareholders in connection with the sale of the shares, if any. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration and filing fees, Nasdaq listing fees and fees and expenses of our counsel and our accountants.

SELLING SHAREHOLDERS

The ordinary shares being offered for resale by the selling shareholders pursuant to the Form F-3 of which this prospectus forms a part are the ordinary shares issuable to the selling shareholders pursuant to the terms of the Convertible Notes and upon exercise of the Warrants. For additional information regarding the issuance of those Convertible Notes and Warrants, see "Description of the Transaction." We are registering the ordinary shares in order to permit the selling shareholders to offer the shares for resale from time to time. Except for the ownership of the Convertible Notes and the Warrants issued pursuant to the Loan Agreement and as described below, the selling shareholders have not had any material relationship with us within the past three years.

The table below lists the selling shareholders and other information regarding the beneficial ownership of ordinary shares by each of the selling shareholders. The second column lists the number of ordinary shares beneficially owned by each selling shareholder, based on its ownership of the Convertible Notes and Warrants, as of August 15, 2020, assuming conversion of all Convertible Notes at the conversion price of \$7.88 per share that the Convertible Notes will accrue interest through January 14, 2025 at a rate of 8.2% per annum, and the exercise of Warrants that are held by the selling shareholders. The third column lists the ordinary shares being offered by this prospectus by the selling shareholders. The fourth column lists the ordinary shares held by each selling shareholder after completion of this offering, and assumes the full exercise of the Warrants held by each of the selling shareholders and that each selling shareholder subsequently sells all of the shares covered by this prospectus and assumes full conversion of the Convertible Notes. The fifth column lists the percentage ownership held by each selling shareholder after completion of this offering to the extent such percentage exceeds 1% of the total number of ordinary shares outstanding at that time. The information presented regarding the selling shareholders is based, in part, on information the selling shareholders provided to us in writing specifically for use in this prospectus. The selling shareholders may sell all, some or none of their shares in this offering. See "Plan of Distribution."

In addition to the assumptions described above, beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power over securities. To our knowledge, unless otherwise indicated, all persons named in the table below have sole voting and investment power with respect to their ordinary shares. Percentage of beneficial ownership is based on 50,142,711 shares of our ordinary shares outstanding as of August 31, 2020.

| | | Maximum | Number of | Percentage of |
|---|-----------------|------------------|-----------|------------------|
| | | Number of | Ordinary | Ordinary Shares |
| | Number of | Ordinary Shares | Shares | Owned After |
| | Ordinary Shares | to be Sold | Owned | Offering (to the |
| | Owned Prior to | Pursuant to this | After | extent greater |
| Name of Selling Shareholder | Offering | Prospectus | Offering | than 1%) |
| Pontifax Medison Finance (Israel) L.P.(1) | 1,258,980(2) | 1,258,980 | _ | _ |
| Pontifax Medison Finance (Cayman) L.P.(3) | 541,277(4) | 541,277 | | _ |
| Kreos Capital VI (UK) Limited(5) | 1,056,996(6) | 1,056,996 | _ | _ |

^{*} Denotes less than 1%.

(1) Pontifax Medison Finance (Israel), Limited Partnership ("Pontifax Israel"), is a limited partnership registered under the laws of the State of Israel. Decisions with respect to the disposition of securities are taken by the fund's investment committee. The members of the investment committee are Mr. Tomer Kariv, Mr. Ran Nussbaum, Mr. Shlomo (Momi) Karako and Mr. Gil Gurfinkel. In addition, Pontifax Medison Finance GP Limited Partnership ("Pontifax Management") is the general partner of Pontifax Israel. Pontifax Management 4 G.P. (2015) Ltd. is the general partner of Pontifax Management. Mr. Tomer Kariv and Mr. Ran Nussbaum are directors of Pontifax Management 4 G.P. (2015) Ltd., and as such, hold voting and/or dispositive

- power over the shares held by Pontifax Israel. The address of the entities affiliated with Pontifax Israel is 14 Shenkar St., Herzeliya, Israel
- (2) Consists of (i) 1,125,810 ordinary shares issuable under the Convertible Notes and (ii) 133,170 shares of our ordinary shares issuable upon exercise of the Warrants.
- (3) Pontifax Medison Finance (Cayman), L.P. ("Pontifax Cayman"), is a limited partnership registered under the laws of the Cayman Islands. Decisions with respect to the disposition of securities are taken by the fund's investment committee. The members of the investment committee are Mr. Tomer Kariv, Mr. Ran Nussbaum, Mr. Shlomo (Momi) Karako and Mr. Gil Gurfinkel. In addition, Pontifax Medison Finance GP Limited Partnership ("Pontifax Management") is the general partner of Pontifax Cayman. Pontifax Management 4 G.P. (2015) Ltd. is the general partner of Pontifax Management. Mr. Tomer Kariv and Mr. Ran Nussbaum are directors of Pontifax Management 4 G.P. (2015) Ltd., and as such, hold voting and/or dispositive power over the shares held by Pontifax Cayman. The address of the entities affiliated with Pontifax Cayman is 14 Shenkar St., Herzeliya, Israel.
- (4) Consists of (i) 484,023 ordinary shares issuable under the Convertible Notes and (ii) 57,254 ordinary shares issuable upon exercise of the Warrants.
- (5) Kreos Capital VI (UK) Limited ("Kreos UK"), is a company incorporated in England and Wales and is a fully owned subsidiary of Kreos Capital VI (Expert Fund) LP. Decisions with respect to the disposition of securities are taken by the fund's debt advisory committee. The members of the debt advisory committee are Raoul Stein, Ross Ahlgren, Aris Constantinides, Maurizio Petitbon, Sean Dunne, Parag Gandesha, Mark Collins, Michael Johnson & Marten Vading. In addition, Kreos Capital Group VI Limited in its capacity as general partner to Kreos Capital Group VI LP is the general partner of Kreos Capital VI (Expert Fund) LP. Clive Spears, David Pirouet, Parag Gandesha, Raoul Stein, Mark Collins and Michael Johnson are the directors of Kreos Capital Group VI Limited and as such, hold voting and/or dispositive power over the shares held by Kreos UK. The registered office address of Kreos UK is Amf Building, 25 Old Burlington Street, London W1S 3AN.
- (6) Consists of (i) 944,744 ordinary shares issuable under the Convertible Notes and (ii) 112,252 shares of our ordinary shares issuable upon exercise of the Warrants.

PLAN OF DISTRIBUTION

We are registering the ordinary shares issuable pursuant to the terms of the Convertible Notes and upon exercise of the Warrants to permit the resale of these shares by the holders of the Convertible Notes and Warrants from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling shareholders of the ordinary shares.

The selling shareholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling ordinary shares or interests in ordinary shares received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their ordinary shares or interests in ordinary shares on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling shareholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction:
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this prospectus is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling shareholders to sell a specified number of such shares at a stipulated price per share;
- one or more underwritten offerings on a firm commitment or best effort basis;
- a combination of any such methods of sale; and
- any other method permitted by applicable law.

Pursuant to registration rights agreements, certain selling shareholders are generally entitled to be paid all registration expenses in connection with their registration obligations, regardless of whether a registration statement is filed or becomes effective.

The selling shareholders may, from time to time, pledge or grant a security interest in some or all of the ordinary shares owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the ordinary shares, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act, amending the list of selling shareholders to include the pledgee, transferee or other successors in interest as selling shareholders under this prospectus. The selling shareholders also may transfer the ordinary shares in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of ordinary shares or interests therein, the selling shareholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the ordinary shares in the course of hedging the positions they assume. The selling shareholders may also sell ordinary shares short and deliver these securities to close out their short positions, or loan or pledge the ordinary shares to broker-dealers that in turn may sell these securities. The selling shareholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling shareholders from the sale of the ordinary shares offered by them will be the purchase price of the ordinary shares less discounts or commissions, if any. Each of the selling shareholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of ordinary shares to be made directly or through agents. We will not receive any of the proceeds from this offering.

The selling shareholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, if available, or pursuant to other available exemptions from the registration requirements under the Securities Act, rather than this prospectus, provided that they meet the criteria and conform to the requirements of that rule. Registration of the ordinary shares covered by this prospectus does not mean that any ordinary shares will be offered or sold.

The selling shareholders may engage in at-the-market offerings and offer the ordinary shares into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act on the terms described in the prospectus supplement relating thereto. Underwriters, dealers and agents who participate in any at-the-market-offerings will be described in the prospectus supplement relating thereto.

The selling shareholders and any underwriters, broker-dealers or agents that participate in the sale of the ordinary shares or interests therein may be "underwriters" within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling shareholders who are "underwriters" within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the ordinary shares to be sold, the names of the selling shareholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the ordinary shares may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the ordinary shares may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

If at the time of any offering made under this prospectus, a member of FINRA participating in the offering has a "conflict of interest" as defined in FINRA Rule 5121 ("Rule 5121"), that offering will be conducted in accordance with the relevant provisions of Rule 5121.

We have advised the selling shareholders that the anti-manipulation rules of Regulation M promulgated under the Exchange Act may apply to sales of shares in the market and to the activities of the selling shareholders and their affiliates. In addition, to the extent applicable we will make copies of

this prospectus (as it may be supplemented or amended from time to time) available to the selling shareholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling shareholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling shareholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling shareholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus and actually issued or issuable upon conversion of the Term Loans have been sold and (2) the date on which all of the shares may be sold without restriction pursuant to Rule 144 of the Securities Act.

LEGAL MATTERS

Legal matters with respect to U.S. federal and New York law in connection with this offering will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts. Certain legal matters with respect to Dutch law in connection with the validity of the ordinary shares being offered by this prospectus and other legal matters will be passed upon for us by Allen & Overy LLP, Amsterdam, the Netherlands.

EXPERTS

The consolidated financial statements, incorporated in this prospectus by reference from the Company's Annual Report on Form 20-F, and the effectiveness of the Company's internal control over financing reporting, have been audited by Deloitte Accountants B.V., an independent registered public accounting firm as stated in their reports, which are incorporated herein by reference. Such financial statements have been so incorporated in reliance upon the reports of such firm, given upon their authority as experts in auditing and accounting.

SERVICE OF PROCESS AND ENFORCEMENT OF LIABILITIES

We are incorporated under the laws of the Netherlands. Substantially all of our business is conducted, and substantially all of our assets are located, in the Netherlands. Most of our directors and the experts named in this prospectus are residents of, and most of their assets are located in, jurisdictions outside the United States. As a result, it may be difficult for you to serve process on us or these persons within the United States or to enforce against us or these persons in courts in the United States, judgments of these courts predicated upon the civil liability provisions of U.S. securities laws. In addition, it is not clear whether a Dutch court would impose civil liability on us, members of our management board, supervisory board or any of the experts named in this prospectus in an original action based solely upon the federal securities laws of the United States brought in a court of competent jurisdiction in the Netherlands. We have appointed CT Corporation System, New York, New York, as our agent for service of process in the United States with respect to any action brought against us in the United States District Court for the Southern District of New York under the securities laws of the United States of the United States or any action brought against us in the Supreme Court of the State of New York in the County of New York under the securities laws of the State of New York.

As there is no treaty on the reciprocal recognition and enforcement of judgments in civil and commercial matters between the United States and the Netherlands, courts in the Netherlands will not automatically recognize and enforce a final judgment rendered by a U.S. court. In order to obtain a judgment enforceable in the Netherlands, claimants must obtain from a Dutch court leave to enforce the judgment rendered by a U.S. court. Under current practice, however, a Dutch court may be expected to render a judgment in accordance with the judgment rendered by the U.S. court, without a review on the merits of the underlying claim, if it finds that:

- the jurisdiction of the U.S. court has been based on grounds that are internationally acceptable;
- the final judgment has not been rendered in violation of the elementary principles of fair trial in the Netherlands;
- the final judgment does not contravene public policy of the Netherlands; and
- the final judgment is not incompatible with (a) a prior judgment of a Netherlands court rendered in a dispute between the same parties, or (b) a prior judgment of a foreign court rendered in a dispute between the same parties, concerning the same subject matter and based on the same cause of action, provided that such prior judgment is capable of being recognized in the Netherlands.

In the event directors or other third parties are liable towards a Dutch company, only the company itself can bring a civil action against those parties. The individual shareholders do not have the right to bring an action on behalf of the company. Only in the event that the cause for the liability of a third party to the company also constitutes a tortious act directly against a shareholder does that shareholder have an individual right of action against such third party in its own name. The Dutch Civil Code does provide for the possibility to initiate such actions collectively. A foundation or an association whose objective is to protect the rights of a group of persons having similar interests can institute a collective action. The collective action itself cannot result in an order for payment of monetary damages but may only result in a declaratory judgment (*verklaring voor recht*). To obtain compensation for damages, individual claimants can base their claim on the declaratory judgment obtained by the foundation or association but they still need to individually sue the defendant for damages. Alternatively, in order to obtain compensation for damages, the foundation or association and the defendant may reach—often on the basis of such declaratory judgment—a settlement. A Dutch court may declare the settlement agreement binding upon all the injured parties with an opt-out choice for an individual injured party. An individual injured party may also itself institute a civil claim for damages.

EXPENSES

The following table sets forth the expenses related to the filing of the registration statement of which this prospectus forms a part, all of which will be paid by us. In addition, we may incur additional expenses in the future in connection with the offering of our securities pursuant to this prospectus. If required, any such additional expenses will be disclosed in a prospectus supplement. All amounts other than the SEC registration fee and filing fee are estimates.

| SEC registration fees | \$ 2,922.4 | 47 |
|--------------------------------|------------|----|
| Legal fees and expenses | | * |
| Printing expenses | | * |
| Accountants' fees and expenses | | * |
| Miscellaneous expenses | | * |
| Total | \$ | * |

^{*} To be provided by a prospectus supplement or as an exhibit to a Report on Form 6-K that is incorporated by reference into this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with the SEC, by referring you to other documents filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus. Any information that we file later with the SEC and that is deemed incorporated by reference will automatically update and supersede the information in this prospectus. In all such cases, you should rely on the later information over different information included in this prospectus or in any incorporated document. You should not assume that information in any document incorporated by reference into this prospectus or any accompanying prospectus supplement is current as of any date other than the date of that document. This prospectus will be deemed to incorporate by reference the following documents, except that we do not incorporate any document or portion of a document that was furnished and deemed by the rules of the SEC not to have been filed:

- our Annual Report on Form 20-F for the year ended December 31, 2019, filed with the SEC on March 31, 2020;
- our Reports of Foreign Private Issuer on Form 6-K, filed with the SEC on <u>January 30, 2020</u>, <u>February 26, 2020</u>, <u>May 26, 2020</u>, <u>June 24, 2020</u>, <u>July 14, 2020</u>, <u>July 20, 2020</u> and <u>August 6, 2020</u>; and
- the description of our ordinary shares contained in our registration statement on Form 8-A (File No. 001-36622), filed with the SEC on September 16, 2014, including any other amendments or reports filed for the purpose of updating such description (other than any portion of such filings that are furnished under applicable SEC rules rather than filed).

We will also incorporate by reference any future filings made with the SEC under the Exchange Act after (i) the date of the initial registration statement and prior to the effectiveness of the registration statement and (ii) the date of this prospectus and before the completion of the offering of the securities under the registration statement. In addition, we will incorporate by reference certain future materials furnished to the SEC on Form 6-K after the date of the initial registration statement, but only to the extent specifically indicated in those submissions or in a future prospectus supplement. Each subsequently filed Annual Report should be deemed to supersede entirely each earlier filed Annual Report and Reports of Foreign Private Issuer on Form 6-K containing our quarterly earnings releases and, unless explicitly stated otherwise, such earlier reports should not be deemed to be part of this prospectus or any accompanying prospectus supplement and you should not rely upon statements made in those earlier periodic reports.

You may request a copy of these filings, at no cost, by writing, telephoning or emailing us at the following address:

Zernikedreef 9 2333 CK Leiden The Netherlands Attention: Company Secretary Tel.: +31 88 166 7000 IR@progr.com

WHERE YOU CAN FIND MORE INFORMATION

We file reports and other information with the SEC, including annual reports on Form 20-F and reports of foreign private issuer on Form 6-K, which you may review at www.sec.gov.

This prospectus is part of a registration statement on Form F-3 that we have filed with the SEC. To see more detail, you should read the registration statement and the exhibits and schedules filed with, or incorporated by reference into, our registration statement.

This registration statement, including the exhibits contained or incorporated by reference therein, can be read at the SEC website referred to above. Any statement made or incorporated by reference in this prospectus concerning the contents of any contract, agreement or other document is only a summary of the actual contract, agreement or other document. If we have filed or incorporated by reference any contract, agreement or other document as an exhibit to the registration statement, you should read the exhibit for a more complete understanding of the document or matter involved. Each statement regarding a contract, agreement or other document is qualified in its entirety by reference to the actual document.

We maintain a corporate website at www.proqr.com. Information contained on, or that can be accessed through, our website does not constitute a part of this prospectus and our website address is included in this prospectus as an inactive textual reference only.



Up to 2,857,254 Ordinary Shares

PROSPECTUS

September 18, 2020