Filed pursuant to Rule 424(b)(5) Registration No. 333-221491

PROSPECTUS SUPPLEMENT

(To prospectus dated December 4, 2017)



CRISPR Therapeutics AG

Up to \$125,000,000

Common Shares

We have entered into an Open Market Sale AgreementSM, or Sales Agreement, with Jefferies LLC, or Jefferies, relating to our common shares offered by this prospectus supplement and the accompanying prospectus. In accordance with the terms of the Sales Agreement, we may offer and sell our common shares, CHF 0.03 par value, having an aggregate offering price of up to \$125,000,000 from time to time through Jefferies, acting as our agent.

Sales of our common shares, if any, under this prospectus supplement and the accompanying prospectus may be made in sales deemed to be an "at the market offering" as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, or the Securities Act. Jefferies is not required to sell any specific number or dollar amount of securities, but will act as a sales agent using commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreed terms between Jefferies and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

Jefferies will be entitled to compensation at a commission rate of up to 3.0% of the gross sales price per common share sold under the Sales Agreement. See "Plan of Distribution" beginning on page S-13 for additional information regarding the compensation to be paid to Jefferies. In connection with the sale of the common shares on our behalf, Jefferies will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of Jefferies will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Jefferies with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended, or the Exchange Act.

We are an emerging growth company as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements for this prospectus supplement and future filings.

Investing in our securities involves risks. See the "Risk Factors" on page S-5 of this prospectus supplement, as well as in the documents incorporated or deemed to be incorporated by reference into this prospectus supplement and the accompanying prospectus, concerning factors you should consider before buying the common shares.

Our common shares are listed on The Nasdaq Global Market under the symbol "CRSP." On August 28, 2018, the closing sale price of our common shares on The Nasdaq Global Market was \$51.15 per share.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

Jefferies

The date of this prospectus supplement is August 31, 2018.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 that we have filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. Under this shelf registration process, we may offer any combination of our securities described in our base prospectus included in the shelf registration statement in one or more offerings up to a total aggregate offering price of \$300,000,000. The \$125,000,000 of common shares that may be offered, issued and sold under this prospectus supplement is included in the \$300,000,000 of securities that may be offered, issued and sold by us pursuant to our shelf registration statement.

This prospectus supplement relates to the offering of our common shares. Before buying any of the common shares that we are offering, we urge you to carefully read this prospectus supplement and the accompanying prospectus together with the information incorporated by reference as described under the headings "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" in these documents. These documents contain important information that you should consider when making your investment decision.

This prospectus supplement describes the terms of this offering of common shares and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into the accompanying prospectus. If any statement in one of these documents is inconsistent with a statement in another document having a later date (for example, a document incorporated by reference into this prospectus supplement) the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. We have not, and the sales agent has not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the sales agent is not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference, and in any free writing prospectus that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision.

Unless otherwise stated, all references in this prospectus supplement or the accompanying prospectus to "us," "our," "CRISPR," "CRISPR Therapeutics AG," "we," the "Company" and similar designations refer, collectively, to CRISPR Therapeutics AG, a Swiss stock corporation (Aktiengesellschaft), and its consolidated subsidiaries, CRISPR Therapeutics, Inc., TRACR Hematology Ltd. and CRISPR Therapeutics Ltd.

No action is being taken in any jurisdiction outside the United States to permit a public offering of the securities or possession or distribution of this prospectus supplement or the accompanying prospectus in that jurisdiction. Persons who come into possession of this prospectus supplement or the accompanying 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 supplement or the accompanying prospectus applicable to that jurisdiction.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere in this prospectus supplement and the accompanying prospectus and in the documents incorporated by reference herein or therein. This summary does not contain all the information that you should consider before investing in our common shares. You should read this entire prospectus supplement and the accompanying prospectus carefully, especially the risks of investing in our common shares discussed under "Risk Factors" beginning on page S-5 of this prospectus supplement, along with our consolidated financial statements and notes to those consolidated financial statements and the other information incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision. This prospectus supplement may add to, update or change information in the accompanying prospectus.

Our Business

Overview

We are a leading gene editing company focused on the development of CRISPR/Cas9-based therapeutics. CRISPR/Cas9 stands for Clustered, Regularly Interspaced Short Palindromic Repeats (CRISPR) Associated protein-9 and is a revolutionary technology for gene editing, the process of precisely altering specific sequences of genomic DNA. We are applying this technology to potentially treat a broad set of both rare and common diseases by disrupting, correcting or regulating disease-related genes. We believe that our scientific expertise, together with our gene editing approach, may enable an entirely new class of highly effective and potentially curative treatments for patients for whom current biopharmaceutical approaches have had limited success. Our most advanced programs target beta-thalassemia and sickle cell disease, two hemoglobinopathies that have high unmet medical need.

The use of CRISPR/Cas9 for gene editing was derived from a naturally occurring viral defense mechanism in bacteria and has been described by leading scientific journals as a breakthrough technology. The application of CRISPR/Cas9 for gene editing was co-invented by one of our scientific founders, Dr. Emmanuelle Charpentier, a director of the Max-Planck Institute for Infection Biology in Berlin. Dr. Charpentier and her collaborators published work elucidating the mechanism by which the Cas9 endonuclease, a key component of CRISPR/Cas9, can be programmed to cut double-stranded DNA at specific locations. We have acquired rights to the foundational intellectual property encompassing CRISPR/Cas9 and related technologies from Dr. Charpentier, and continue to strengthen our intellectual property estate through our own research and additional in-licensing efforts, furthering our leadership in the development of CRISPR/Cas9-based therapeutics.

Our product development and partnership strategies are designed to exploit the full potential of the CRISPR/Cas9 platform while maximizing the probability of successfully developing our product candidates. We are pursuing a two-pronged product development strategy using both *ex vivo* and *in vivo* approaches. Our most advanced product candidate, referred to as CTX001, targets sickle cell disease and beta-thalassemia with an *ex vivo* approach whereby cells are harvested from a patient, treated with a CRISPR/Cas9-based therapeutic and reintroduced into the patient.

We have chosen to conduct our lead programs in these two hemoglobinopathies given the relative ease of editing genes *ex vivo*, the significant unmet medical need associated with sickle cell disease and beta-thalassemia, and the well-understood genetics of these diseases. Drawing from the *ex vivo* gene editing expertise gained through our lead programs, we are advancing immuno-oncology cell therapy programs starting with CTX101, a healthy donor-derived gene-edited allogeneic CAR-T therapy targeting CD19-positive malignancies. In addition, we have two earlier stage allogeneic CAR-T programs targeting B-Cell maturation antigen, or BCMA and CD70. Beyond our *ex vivo* programs, we are also pursuing select *in vivo* applications, whereby the CRISPR/Cas9-based therapeutic is delivered directly to target cells within the human body. Our initial *in vivo* applications will leverage well-established delivery technologies for gene-based therapeutics.

Given the numerous potential therapeutic applications for CRISPR/Cas9, we have partnered strategically to broaden the indications we can pursue and accelerate development of programs by accessing specific technologies and/or disease-area expertise. In particular, we established a joint venture, called Casebia Therapeutics LLP, with Bayer HealthCare and its subsidiaries in which we have a 50% interest, and a collaboration agreement with Vertex Pharmaceuticals Incorporated in order to pursue specific indications where these companies have outstanding and distinctive capabilities. In December 2017, we entered into a joint development and commercialization agreement with Vertex to co-develop and co-commercialize CTX001 as part of our existing collaboration. The significant resource commitments by our partners underscore the potential of our platform, as well as their dedication to developing transformative CRISPR/Cas9-based therapeutics.

Our mission is to create transformative gene-based medicines for serious human diseases. We believe that our highly experienced team, together with our scientific expertise, product development strategy, partnerships and intellectual property position us as a leader in the development of CRISPR/Cas9-based therapeutics.

Company Information

We were incorporated as a Swiss stock corporation (*Aktiengesellschaft*) on October 28, 2013 in Basel, Switzerland under the name Inception Genomics AG. We changed our name to CRISPR Therapeutics AG on April 28, 2014 and changed our domicile to the canton of Zug, Switzerland in July 2017. Our principal offices are located at Baarerstrasse 14, 6300 Zug, Switzerland and our principal research operations are in Cambridge, Massachusetts. Our telephone number is + 41 41 561 32 77. Our website is *www.crisprtx.com*. Our website and the information contained therein or connected thereto are not incorporated into this prospectus supplement, the accompanying prospectus or the registration statement of which they form a part.

The trademarks, trade names and services marks appearing in this prospectus supplement and the accompanying prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus may be referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

Implications of Being an Emerging Growth Company

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We will remain an emerging growth company until the earlier of (i) December 31, 2021; (ii) the last day of the fiscal year in which we have total annual gross revenues of \$1.07 billion or more; (iii) the date on which we have issued more than \$1.0 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission, which means the market value of our common shares that are held by non-affiliates exceeds \$700 million as of June 30th of the previous year. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies.

THE OFFERING

Common shares offered by us Common shares having an aggregate offering price of up to \$125,000,000.

Common shares to be outstanding following the

offering

Up to 49,554,724 shares (as more fully described in the notes following this table), assuming sales of 2,443,793 shares of our common shares in this offering at an offering price of \$51.15 per share, which was the last reported sale price of our common shares on The Nasdaq Global Market on August 28, 2018. The actual number of shares issued will vary depending on the sales price under this offering.

Manner of offering "At the market offering" that may be made from time to time on the Nasdaq Global Market

or other existing trading market for our common stock through our agent, Jefferies LLC.

See "Plan of Distribution" on page S-13.

Use of proceeds We intend to use the net proceeds from this offering to fund research and clinical

development of current or additional pipeline candidates, platform extensions,

manufacturing infrastructure, working capital and general corporate purposes. See "Use of

Proceeds" on page S-9 for additional information.

Risk factors Investing in our common shares involves risks. See "Risk Factors" beginning on page S-5

of this prospectus supplement and other information included or incorporated by reference into this prospectus supplement and the accompanying prospectus for a discussion of the

factors you should carefully consider before deciding to invest in our securities.

The Nasdag Global Market symbol "CRSP"

The number of common shares to be outstanding after the offering is based on 47,110,931 common shares outstanding as of June 30, 2018, including 39,096 issued but unvested restricted shares that are not considered outstanding for accounting purposes until vested, but excludes:

- 6,617,181 of our common shares issuable upon the exercise of options outstanding as of June 30, 2018 at a weighted-average exercise price of \$23.35 per common share;
- 130,834 of our common shares reserved for issuance upon the vesting, release and settlement of restricted stock units outstanding as
 of June 30, 2018;
- 7,749,714 of our common shares reserved for future issuance under our 2018 Stock Option and Incentive Plan;
- 413,226 common shares reserved for issuance under our 2016 Employee Stock Purchase Plan, or ESPP; and
- 409,361 treasury shares.

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise of stock options after June 30, 2018.

RISK FACTORS

Investing in our common shares involves a high degree of risk. Investors should carefully consider the risks described in our Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q, as well as other information in this prospectus supplement and the documents incorporated by reference herein before deciding whether to invest in our securities. Such risks and uncertainties and those discussed below are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business. If any of these risks occur, our business, financial condition and operating results could be harmed, the trading price of our common shares could decline and you could lose part or all of your investment.

Risks Related to Our Common Shares and this Offering

We Have Broad Discretion In How We Use The Proceeds Of This Offering And May Not Use These Proceeds Effectively, Which Could Affect Our Results Of Operations And Cause Our Common Share Price To Decline.

We will have considerable discretion in the application of the net proceeds of this offering. We anticipate that we will use the net proceeds from this offering to fund research and clinical development of current or additional pipeline candidates, platform extensions, manufacturing infrastructure, working capital and general corporate purposes. As a result, investors will be relying upon management's judgment with only limited information about our specific intentions for the use of the balance of the net proceeds of this offering. We may use the net proceeds for purposes that do not yield a significant return or any return at all for our shareholders. In addition, pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

If You Purchase Our Common Shares In This Offering, You Will Incur Immediate And Substantial Dilution In The Book Value Of Your Shares. Investors purchasing common shares in this offering will pay a price per share that substantially exceeds the as adjusted book value per share of our tangible assets as of June 30, 2018 after subtracting our liabilities. As a result, investors purchasing common shares in this offering will incur immediate dilution of \$43.37 per share, based on the difference between the assumed public offering price of \$51.15 per share, which was the last reported sale price of our common shares on The Nasdaq Global Market on August 28, 2018, and the as adjusted net tangible book value per share of our outstanding common shares as of June 30, 2018.

This dilution is due to the substantially lower price paid by some of our investors who purchased shares prior to this offering as compared to the price offered to the public in this offering, and the exercise of stock options granted to our employees. In addition, as of June 30, 2018, options to purchase 6,617,181 common shares at a weighted average exercise price of \$23.35 per share were outstanding. The exercise of any of these options would result in additional dilution. As a result of the dilution to investors purchasing shares in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of our liquidation. Further, because we will need to raise additional capital to fund our future activities, we may in the future sell substantial amounts of common shares or securities convertible into or exchangeable for common shares.

These future issuances of common shares or common share-related securities, together with the exercise of outstanding options and any additional shares issued in connection with acquisitions, if any, may result in further dilution. For a further description of the dilution that you will experience immediately after this offering, see "Dilution."

Sales Of A Substantial Number Of Our Common Shares In The Public Market Could Cause Our Share Price To Fall.

Sales of a substantial number of our common shares in the public market or the perception that these sales might occur could depress the market price of our common shares, could make it more difficult for you to sell your common shares at a time and price that you deem appropriate and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that sales may have on the prevailing market price of our common shares.

As of June 30, 2018, 47,110,931 common shares were outstanding, including 39,096 issued but unvested restricted shares that are not considered outstanding for accounting purposes until vested, but excludes 409,361 treasury shares, options to purchase 6,617,181 common shares, of which 1,757,151 were exercisable as of that

date, and 130,834 of our common shares reserved for issuance upon the vesting, release and settlement of restricted stock units outstanding as of that date. The sale or the availability for sale of a large number of our common shares in the public market could cause the price of our common shares to decline.

Certain holders of common shares are entitled to rights with respect to the registration of their shares under the Securities Act. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares purchased by affiliates. Any sales of securities by these shareholders could have a material adverse effect on the trading price of our common shares.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the information incorporated by reference herein and therein contain statements that are not historical facts and are considered forward-looking within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. All statements, other than statements of historical facts, contained or incorporated by reference in this prospectus are forward-looking statements. In some cases, you can identify forward-looking statements by words such as "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "seek," "should," "target," "will," "would" or the negative of these words or other comparable terminology, although not all forward-looking statements contain these identifying words. Forward-looking statements include, but are not limited to, statements about:

- the initiation, cost, timing, progress and results of our research and development activities, preclinical studies and future clinical trials;
- our ability to create a pipeline of product candidates;
- our ability to advance any product candidate into, and successfully complete clinical trials;
- our ability to obtain and maintain regulatory approval of our future product candidates, and any related restrictions, limitations and/or warnings in the label of an approved product candidate;
- our ability to obtain funding for our operations;
- our plans to research, develop and commercialize our future product candidates;
- the success of our joint venture with Bayer HealthCare LLC and our collaboration with Vertex Pharmaceuticals, Incorporated;
- our ability to obtain and maintain intellectual property protection for our future product candidates;
- the size and growth potential of the markets for our future product candidates, and our ability to serve those markets;
- our ability to successfully commercialize our current and future product candidates;
- the rate and degree of market acceptance of our current and future product candidates;
- regulatory developments in the United States and foreign countries;
- developments relating to gene-editing technologies including CRISPR/Cas9:
- the success of competing therapies that are or become available;
- our ability to retain key scientific or management personnel;
- our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately;
- our use of the proceeds from this offering; and
- the accuracy of our estimates regarding expenses, future revenues, capital requirements and need for additional financing.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, particularly in the "Risk Factors" section, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make or enter into.

You should read this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, as well as the documents that we have filed as exhibits to the registration statement of which this prospectus supplement forms a part, completely and with the understanding that our actual future results, performance or achievements may be materially different from what we expect. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein contains industry, market and competitive position data that are based on industry publications and studies conducted by third parties as well as our own internal estimates and research. These industry publications and third-party studies generally state that the information that they contain has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. We are responsible for all of the disclosure contained in this prospectus, and we believe these industry publications and third-party research, surveys and studies are reliable.

USE OF PROCEEDS

We may issue and sell our common shares having aggregate sales proceeds of up to \$125.0 million from time to time. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. There can be no assurance that we will sell any shares under or fully utilize the sales agreement with Jefferies as a source of financing.

We currently intend to use potential proceeds from this offering to fund research and clinical development of current or additional pipeline candidates, platform extensions, manufacturing infrastructure, working capital and general corporate purposes. Pending the use of the proceeds from this offering, we intend to invest the net proceeds in direct or guaranteed obligations of the U.S. and Swiss governments, money market instruments, interest-bearing investment-grade securities or certificates of deposit.

We believe opportunities may exist from time to time to expand our current business through acquisitions or in-licenses of complementary companies or technologies. While we have no current agreements, commitments or understandings for any specific acquisitions or in-licenses at this time, we may use a portion of the net proceeds for these purposes.

DILUTION

If you invest in our common shares in this offering, your ownership interest will be diluted to the extent of the difference between the price per common share in this offering and the as adjusted net tangible book value per common share immediately after this offering.

As of June 30, 2018, we had net tangible book value of approximately \$264.8 million, or \$5.62 per common share, based upon 47,110,931 common shares outstanding as of that date (which includes 39,096 issued but unvested restricted shares subject to repurchase by us and that are not considered outstanding for accounting purposes until vested but excludes 409,361 treasury shares). Historical net tangible book value per share is equal to our total tangible assets, less total liabilities, divided by the number of outstanding common shares. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of common shares in this offering and the net tangible book value per common share immediately after this offering.

After giving effect to the sale of \$125.0 million of common shares in this offering at the assumed public offering price of \$51.15 per share, which was the last reported sale price of our common shares on The Nasdaq Global Market on August 28, 2018, and after deducting estimated offering commissions and offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2018 would have been approximately \$385.8 million, or approximately \$7.78 per common share. This represents an immediate increase in as adjusted net tangible book value of \$2.16 per share to our existing shareholders and an immediate dilution of \$43.37 per share to investors participating in this offering.

Dilution per share to new investors is determined by subtracting net tangible book value per share after this offering from the assumed public offering price per share paid by new investors. The following table illustrates this per share dilution:

Assumed public offering price per share		\$51.15
Historical net tangible book value per share as of June 30, 2018	\$5.62	
Increase in net tangible book value per share attributable to new investors	\$2.16	
As adjusted net tangible book value per share after this offering		\$ 7.78
Dilution per share to new investors		\$43.37

The foregoing table and discussion is based on 47,110,931 common shares outstanding as of June 30, 2018, including 39,096 issued but unvested restricted shares subject to repurchase by us and that are not considered outstanding for accounting purposes until vested, and excludes:

- 6,617,181 of our common shares issuable upon the exercise of options outstanding as of June 30, 2018 at a weighted-average exercise price of \$23,35 per common share:
- 130,834 of our common shares reserved for issuance upon the vesting, release and settlement of restricted stock units outstanding as of June 30, 2018:
- 7,749,714 of our common shares reserved for future issuance under our 2018 Stock Option and Incentive Plan;
- 413,226 common shares reserved for issuance under our 2016 Employee Stock Purchase Plan, or ESPP; and
- 409,361 treasury shares.

To the extent that any options are exercised, new options are issued under our equity incentive plans, or we otherwise issue additional common shares in the future (including shares issued in connection with acquisitions), there will be further dilution to new investors.

In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our shareholders.

PRICE RANGE OF COMMON SHARES

Our common shares began trading on the Nasdaq Global Market under the symbol "CRSP" on October 19, 2016. Prior to that time, there was no public market for our common shares. The following table sets forth the high and low sale prices per common share, as reported on the Nasdaq Global Market, for the periods indicated:

	SALES	SALES PRICES	
	HIGH	LOW	
Year ended December 31, 2016	<u></u>		
Fourth quarter (from October 19, 2016)	\$23.97	\$13.75	
Year ended December 31, 2017			
First quarter	\$25.00	\$11.63	
Second quarter	\$22.22	\$13.50	
Third quarter	\$21.32	\$15.55	
Fourth quarter	\$25.00	\$16.51	
Year Ending December 31, 2018			
First quarter	\$61.24	\$23.28	
Second quarter	\$73.90	\$40.25	
Third quarter (though August 31, 2018)	\$66.26	\$45.58	

As of August 28, 2018, there were 11 record holders of our common shares. The actual number of shareholders is greater than this number of record holders and includes shareholders who are beneficial owners but whose shares are held in street name by brokers and other nominees.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We intend to retain all available funds and any future earnings, if any, to fund the development and expansion of our business and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to dividend policy will be made at the discretion of our board of directors.

Under Swiss law, any dividend must be proposed by our board of directors and approved by our shareholders. In addition, our auditors must confirm that the dividend proposal of our board of directors conforms to Swiss statutory law and our articles of association. A Swiss corporation may pay dividends only if it has sufficient distributable profits brought forward from the previous business years ("Gewinnvortrag") or if it has distributable reserves ("freie Reserven"), each as evidenced by its audited standalone statutory balance sheet prepared pursuant to Swiss law and after allocations to reserves required by Swiss law and its articles of association have been deducted. Distributable reserves are generally booked either as "free reserves" ("freie Reserven") or as "reserve from capital contributions" ("Kapitaleinlagereserven"). Distributions out of issued share capital, which is the aggregate nominal value of a corporation's issued shares, may be made only by way of a share capital reduction.

PLAN OF DISTRIBUTION

We have entered into a Sales Agreement with Jefferies under which we may issue and sell our common shares from time to time up to an aggregate sales price of \$125,000,000 through Jefferies. The Sales Agreement is filed with the SEC and incorporated by reference into the registration statement of which this prospectus supplement is a part. Sales of our common shares, if any, under this prospectus supplement will be made by any method that is deemed to be an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act, including sales made directly on or through The Nasdag Global Market or any other existing trading market for our common shares.

When requested by us, Jefferies will offer the common shares subject to the terms and conditions of the Sales Agreement, which may be on a daily basis for periods of time, or as we may otherwise agree with Jefferies. We will designate the maximum amount of common shares to be sold through Jefferies when we request Jefferies to do so. Jefferies has agreed, subject to the terms and conditions of the Sales Agreement, to use its commercially reasonable efforts to execute our orders to sell, as our sales agent and on our behalf, of our common shares submitted to Jefferies from time to time by us, consistent with its normal sales and trading practices. We may instruct Jefferies not to place common shares at or below a price designated by us. In any event, the common shares shall be placed by Jefferies substantially at market price. We or Jefferies may suspend the offering of common shares under the Sales Agreement upon proper notice to the other party.

If we and Jefferies so agree, Jefferies may act as principal in connection with the placement of the securities offered hereby.

We will pay Jefferies a commission of up to 3.0% of the gross proceeds of any shares sold through it pursuant to this prospectus supplement, and reimburse Jefferies for up to \$65,000 of its expenses, including fees and disbursements to its legal counsel. The estimated offering expenses payable by us, in addition to such commission and expenses, are approximately \$260,000, which includes legal, accounting and printing costs and various other fees associated with registering the common shares. The remaining sale proceeds, after deducting any other transaction fees, will equal our net proceeds from the sale of such shares.

Jefferies will provide written confirmation to us before the open on The Nasdaq Global Market on the day following each day on which common shares are sold under the Sales Agreement. Each confirmation will include the number of shares sold on that day, the aggregate gross proceeds of such sales and the net proceeds to the Company. Settlement for sales of common shares will occur, unless otherwise agreed, on the second business day following the date on which such sales were made.

In connection with the sale of our common shares on our behalf, Jefferies will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of Jefferies will be deemed to be underwriting commissions or discounts. We have agreed to indemnify Jefferies against certain liabilities, including liabilities under the Securities Act. We have also agreed to contribute to payments Jefferies may be required to make in respect of such liabilities.

The offering of common shares pursuant to the Sales Agreement will terminate upon the earlier of (i) the sale of all common shares subject to the Sales Agreement and (ii) the termination of the Sales Agreement according to its terms by either Jefferies or us.

Jefferies and its affiliates may in the future provide various investment banking, commercial banking, financial advisory and other services to us and our affiliates and may in the future receive customary fees. In the course of its business, Jefferies may actively trade our securities for its own account or for the accounts of customers, and, accordingly, Jefferies may at any time hold long or short positions in such securities.

Pursuant to the Swiss Code of Obligations, subject to limited exceptions, shareholders have statutory pre-emptive rights to subscribe for new shares on a pro-rata basis (measured by their existing shareholdings) in connection with new issuances of shares. With respect to conditional capital in connection with the issuance of conversion rights,

convertible bonds or similar debt instruments, shareholders have, subject to limited exceptions, statutory advance subscription rights for the subscription of conversion rights, convertible bonds or similar debt instruments. The common aim of such pre-emptive rights and advance subscription rights is to provide existing shareholders with statutory legal means against dilution in the case of a capital increase.

In connection with this offering, our board of directors resolved that it was in the best interests of our shareholders to exclude their pre-emptive rights in this offering in order to facilitate a "fast and flexible" public offering which likely could not be effected without the exclusion of the statutory pre-emptive right of our existing shareholders. Because sales made pursuant to this prospectus supplement will be made at prevailing market prices, our board of directors has determined that we will not need to grant our shareholders subscription rights, to allow them to purchase their pro rata portion of shares as if they had participated in this offering.

TAXATION

The following summary does not purport to address all tax consequences of this offering, the acquisition, the ownership and sale or other disposition of our common shares (such shares for the purposes of this "Taxation" section, "Shares") and does not take into account the specific circumstances of any particular investor. This summary is based on the tax laws, regulations and regulatory practices of Switzerland and the United States as in effect on the date hereof, which are subject to change (or subject to changes in interpretation), possibly with retroactive effect.

Current and prospective shareholders are advised to consult their own tax advisers in light of their particular circumstances as to the Swiss or U.S. tax laws, regulations and regulatory practices that could be relevant for them in connection with this offering, the acquiring, owning and selling or otherwise disposing of Shares and receiving dividends and similar cash or in-kind distributions on Shares (including dividends on liquidation proceeds and stock dividends) or distributions on Shares based upon a capital reduction (Kapitalherabsetzung durch Nennwertreduktion) or reserves paid out of capital contributions (Kapitaleinlagen) and the consequences thereof under the tax laws, regulations and regulatory practices of Switzerland and/or the United States.

Swiss Tax Considerations

Swiss Federal, Cantonal And Communal Individual Income Tax And Corporate Income Tax

Non-Resident Shareholders

Except as discussed in the sections titled "—Swiss Federal Withholding Tax," shareholders who are not resident in Switzerland for tax purposes, and who, during the relevant taxation year, have not engaged in a trade or business carried on through a permanent establishment situated in Switzerland for tax purposes (all such shareholders for purposes of this section, "Non-Resident Shareholders"), will not be subject to any Swiss federal, cantonal and communal income tax on dividends and similar cash or in-kind distributions on Shares (including dividends on liquidation proceeds and stock dividends) (such dividends for the purposes of this, "Dividends"), distributions based upon a capital reduction (Kapitalherabsetzung durch Nennwertreduktion) and reserves paid out of capital contributions (Kapitaleinlagen) on Shares, or capital gains realized on the sale or other disposition of Shares.

Resident Private Shareholders

Swiss resident individuals who hold their Shares as private assets are required to include Dividends, but not distributions based upon a capital reduction (*Kapitalherabsetzung durch Nennwertreduktion*) and reserves paid out of capital contributions (*Kapitaleinlagen*), in their personal income tax return and are subject to Swiss federal, cantonal and communal income tax on any net taxable income for the relevant taxation period, including the Dividends, but not the distributions based upon a capital reduction (*Kapitalherabsetzung durch Nennwertreduktion*) and reserves paid out of capital contributions (*Kapitaleinlagen*). Capital gains resulting from the sale or other disposition of Shares are generally not subject to Swiss federal, cantonal and communal income tax, and conversely, capital losses are not tax-deductible for Resident Private Shareholders (the shareholders referred to in this paragraph for the purposes of this section, "Resident Private Shareholders"). See "—Domestic Commercial Shareholders" below for a summary of the taxation treatment applicable to Swiss resident individuals, who, for income tax purposes, are classified as "professional securities dealers".

Domestic Commercial Shareholders

Corporate and individual shareholders who are resident in Switzerland for tax purposes, and corporate and individual shareholders who are not resident in Switzerland, and who, in each case, hold their Shares as part of a trade or business carried on in Switzerland, in the case of corporate and individual shareholders not resident in Switzerland, through a permanent establishment situated, for tax purposes, in Switzerland, are required to recognize Dividends, distributions based upon a capital reduction (*Kapitalherabsetzung durch Nennwertreduktion*) and reserves paid out of capital contributions (*Kapitaleinlagen*) received on Shares and capital gains or losses realized on the sale or other disposition of Shares in their income statement for the relevant taxation period and are subject to Swiss federal, cantonal and communal individual or corporate income tax, as the case may be, on any net taxable earnings for such taxation period. The same taxation treatment also applies to Swiss-resident private individuals who, for income tax purposes, are classified as "professional securities dealers" for reasons of, *inter alia*, frequent dealing, or leveraged

investments, in shares and other securities (the shareholders referred to in this paragraph for purposes of this section, "Domestic Commercial Shareholders"). Domestic Commercial Shareholders who are corporate taxpayers may be eligible for dividend relief (*Beteiligungsabzug*) in respect of Dividends and distributions based upon a capital reduction (*Kapitalherabsetzung durch Nennwertreduktion*) and reserves paid out of capital contributions (*Kapitaleinlagen*) if the Shares held by them as part of a Swiss business have an aggregate market value of at least CHF 1 million.

Swiss Cantonal and Communal Private Wealth Tax and Capital Taxes

Non-Resident Shareholders

Non-Resident Shareholders are not subject to Swiss cantonal and communal private wealth tax or capital tax.

Resident Private Shareholders and Domestic Commercial Shareholders

Resident Private Shareholders and Domestic Commercial Shareholders who are individuals are required to report their Shares as part of private wealth or their Swiss business assets, as the case may be, and will be subject to Swiss cantonal and communal private wealth tax on any net taxable wealth (including Shares), in the case of Domestic Commercial Shareholders to the extent the aggregate taxable wealth is allocable to Switzerland. Domestic Commercial Shareholders who are corporate taxpayers are subject to Swiss cantonal and communal capital tax on taxable capital to the extent the aggregate taxable capital is allocable to Switzerland.

Swiss Federal Withholding Tax

Dividends that we pay on the Shares are subject to Swiss federal withholding tax (*Verrechnungssteuer*) at a rate of 35% on the gross amount of the Dividend. We are required to withhold the Swiss federal withholding tax from the Dividend and remit it to the Swiss Federal Tax Administration. Distributions based upon a capital reduction (*Kapitalherabsetzung durch Nennwertreduktion*) and reserves paid out of capital contributions (*Kapitaleinlagen*) are not subject to Swiss federal withholding tax.

The Swiss federal withholding tax on a Dividend will be refundable in full to a Resident Private Shareholder and to a Domestic Commercial Shareholder to the extent the Shares are allocable to Switzerland, who, in each case, *inter alia*, as a condition to a refund, duly reports the Dividend in his individual income tax return as income or recognizes the Dividend in his income statement as earnings, as applicable.

A Non-Resident Shareholder may be entitled to a full or partial refund of the Swiss federal withholding tax on a Dividend if the country of his or her residence for tax purposes has entered into a bilateral treaty for the avoidance of double taxation with Switzerland and the conditions of such treaty are met. Such shareholders should be aware that the procedures for claiming treaty benefits (and the time required for obtaining a refund) might differ from country to country.

For example, a shareholder who is a resident of the U.S. for the purposes of the Convention between the U.S. and Switzerland for the Avoidance of Double Taxation with Respect to Taxes or Income, is eligible for a refund of the amount of the withholding tax in excess of the 15% treaty rate, or in excess of the 5% reduced treaty rate for qualifying corporate shareholders with at least 10% participation in our voting stock, or for a full refund in the case of qualified pension funds, provided, in each case, such shareholder: (i) qualifies for benefits under the treaty (ii) qualifies as beneficial owner of the Dividends; and (iii) does not conduct business through a permanent establishment or fixed base in Switzerland to which the Shares are attributable. The applicable refund request form may be filed with the Swiss Federal Tax Administration following receipt of the Dividend and the relevant deduction certificate, however no later than 31 December of the third year following the calendar year in which the Dividend was payable.

Swiss Federal Stamp Taxes

We will be subject to and pay to the Swiss Federal Tax Administration a 1% Swiss federal issuance stamp tax (*Emissionsabgabe*) on the consideration received for the issuance of the Shares less certain costs incurred in connection with the issuance.

The issuance of the Shares to the initial shareholders at the offering price is not subject to Swiss federal securities turnover tax (Umsatzabgabe).

Any subsequent dealings in the Shares, where a bank or another securities dealer in Switzerland, as defined in the Swiss Federal Stamp Tax Act, acts as an intermediary, or is a party, to the transaction, are, subject to certain exemptions provided for in the Swiss Federal Stamp Tax Act, subject to Swiss securities turnover tax at an aggregate tax rate of 0.15% of the consideration paid for such Shares.

THE DISCUSSION ABOVE IS A SUMMARY OF MATERIAL SWISS TAX CONSIDERATIONS. IT DOES NOT COVER ALL TAX MATTERS THAT MAY BE OF IMPORTANCE TO A PARTICULAR PROSPECTIVE INVESTOR. EACH PROSPECTIVE INVESTOR IS URGED TO CONSULT ITS OWN TAX ADVISOR ABOUT THE TAX CONSEQUENCES TO IT OF AN INVESTMENT IN THE SHARES IN LIGHT OF THE INVESTOR'S OWN CIRCUMSTANCES.

Material U.S. Federal Income Tax Considerations to U.S. Holders

The following is a summary of material U.S. federal income tax considerations relating to the acquisition, ownership and disposition of the common shares by a U.S. holder (as defined below). This summary addresses only the U.S. federal income tax considerations for U.S. holders that are initial purchasers of the common shares pursuant to this offering and that will hold such common shares as capital assets within the meaning of Section 1221 of the Code (generally, property held for investment) for U.S. federal income tax purposes and does not apply to any shares acquired in the concurrent private placement. This summary does not address all U.S. federal income tax matters that may be relevant to a particular U.S. holder. This summary does not address tax considerations applicable to a holder of common shares that may be subject to special tax rules including, without limitation, the following:

- banks, financial institutions or insurance companies;
- brokers, dealers or traders in securities, currencies, commodities, or notional principal contracts;
- tax-exempt entities or organizations, including an "individual retirement account" or "Roth IRA" as defined in Section 408 or 408A of the Code (as defined below), respectively;
- real estate investment trusts, regulated investment companies or grantor trusts;
- persons that hold the common shares as part of a "hedging," "integrated" or "conversion" transaction or as a position in a "straddle" for U.S. federal income tax purposes;
- partnerships (including entities classified as partnerships for U.S. federal income tax purposes) or other pass-through entities, or persons
 that will hold the common shares through such an entity;
- certain former citizens or long term residents of the United States:
- holders that own directly, indirectly, or through attribution 10% or more of the voting power or value of the common shares; and
- holders that have a "functional currency" for U.S. federal income tax purposes other than the U.S. dollar.

Further, this summary does not address the U.S. federal estate, gift, or alternative minimum tax considerations, or any U.S. state, local, or non-U.S. tax considerations of the acquisition, ownership and disposition of the common shares.

This description is based on the U.S. Internal Revenue Code of 1986, as amended, or the Code; existing, proposed and temporary U.S. Treasury Regulations promulgated thereunder, administrative and judicial interpretations thereof; and the income tax treaty between the United States and the Swiss Confederation, in each case, as in effect and available on the date hereof. All the foregoing is subject to change, which change could apply retroactively, and to differing interpretations, all of which could affect the tax considerations described below. The U.S. government recently enacted the Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018, or the Tax Reform Act. The overall impact of the Tax Reform Act is uncertain, and this prospectus does not address, other than as expressly addressed herein, the manner in which it may affect purchasers of our common shares. Holders should consult with their advisors regarding the impact of the Tax Reform Act on the tax consequences of acquiring, owning, and disposing of the common shares in their particular circumstances. We have not received nor do we expect to seek a ruling from the U.S. Internal Revenue Service, or the IRS, regarding any matter discussed herein. There can be no assurances that the IRS will not take a contrary or different position concerning the tax consequences of the acquisition, ownership and disposition of the common shares or that such a position would not be sustained. Holders should consult their own tax advisers concerning the U.S. federal, state, local and non-U.S. tax consequences of acquiring, owning, and disposing of the common shares in their particular circumstances.

For the purposes of this summary, a "U.S. holder" is a beneficial owner of common shares that is (or is treated as), for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation, or other entity that is treated as a corporation for U.S. federal income tax purposes, created or organized in or under the laws
 of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust, if a court within the United States is able to exercise primary supervision over its administration and one or more U.S. persons have the authority to control all of the substantial decisions of such trust or has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a United States person.

If a partnership (or any other entity treated as a partnership for U.S. federal income tax purposes) holds common shares, the U.S. federal income tax consequences relating to an investment in the common shares will depend in part upon the status of the partner and the activities of the partnership. Such a partner or partnership should consult its tax advisor regarding the U.S. federal income tax considerations of acquiring, owning and disposing of the common shares in its particular circumstances.

As indicated below, this discussion is subject to U.S. federal income tax rules applicable to a "passive foreign investment company," or a PFIC. As discussed below under "Passive Foreign Investment Company Considerations," it is possible we were a PFIC with respect to the 2017 taxable year and it is possible we may be a PFIC for our current taxable year as well. In addition, it is possible that we will be a CFC for our current table year or a taxable year following the year of this offering and/or, because of recent changes pursuant to the Tax Reform Act, that our non-United States subsidiaries will be CFCs for the current taxable year or a future taxable year even if we are not a CFC for such taxable year(s), and if we are, or any of our non-United States subsidiaries are, a CFC, this discussion assumes that a "U.S. holder" does not include a holder that is a United States person (within the meaning of the Code) who owns or is considered to own (i) 10% or more of the total combined voting power of all classes of our stock entitled to vote or (ii) 10% or more of the total value of all classes of our stock. U.S. holders are urged to consult their tax advisors about the application of the PFIC and CFC rules to any of our subsidiaries.

Persons considering an investment in the common shares should consult their own tax advisors as to the particular tax consequences applicable to them relating to the acquisition, ownership and disposition of the common shares, including the applicability of U.S. federal, state and local tax laws and non-U.S. tax laws.

Distributions

Although we do not currently plan to pay dividends, and subject to the discussion under "Passive Foreign Investment Company Considerations" below, the gross amount of any distribution (before reduction for any amounts withheld in respect of Swiss withholding tax, if any) actually or constructively received by a U.S. holder with respect to common shares will be taxable to the U.S. holder as a dividend to the extent of the U.S. holder's pro rata share of our current and accumulated earnings and profits as determined under U.S. federal income tax principles. Distributions in excess of earnings and profits will be non-taxable to the U.S. holder to the extent of, and will be applied against and reduce, the U.S. holder's adjusted tax basis in the common shares. Distributions in excess of earnings and profits and such adjusted tax basis will generally be taxable to the U.S. holder as either longterm or short-term capital gain depending upon whether the U.S. holder has held the common shares for more than one year as of the time such distribution is received. However, since we do not calculate our earnings and profits under U.S. federal income tax principles, it is expected that any distribution will be reported as a dividend, even if that distribution would otherwise be treated as a non-taxable return of capital or as capital gain under the rules described above. Non-corporate U.S. holders may qualify for the preferential rates of taxation with respect to dividends on common shares applicable to long-term capital gains (i.e., gains from the sale of capital assets held for more than one year) applicable to qualified dividend income (as discussed below) if we are a "qualified foreign corporation" and certain other requirements (discussed below) are met. A non-United States corporation (other than a corporation that is classified as a PFIC for the taxable year in which the dividend is paid or the preceding taxable year) generally will be considered to be a qualified foreign corporation (a) if it is eligible for the benefits of a comprehensive tax treaty with the United States which the Secretary of Treasury of the United States determines is satisfactory for purposes of this provision and which includes an exchange of information provision, or (b) with respect to any dividend it pays on

shares of stock which are readily tradable on an established securities market in the United States. We expect that the common shares will be listed on Nasdaq, which is an established securities market in the United States, and we expect the common shares to be readily tradable on Nasdaq. However, there can be no assurance that the common shares will be considered readily tradable on an established securities market in the United States in later years. As we are incorporated under the laws of the Swiss Confederation, we believe that we qualify as a resident of Switzerland for purposes of, and are eligible for the benefits of, The Convention between the United States of America and the Swiss Confederation for the Avoidance of Double Taxation with Respect to Taxes on Income, signed on October 2, 1996, or the U.S.-Swiss Tax Treaty, although there can be no assurance in this regard. Further, the IRS has determined that the U.S.-Swiss Tax Treaty is satisfactory for purposes of the qualified dividend rules and that it includes an exchange-of-information program. Therefore, subject to the discussion under "Passive Foreign Investment Company Considerations" below, such dividends will generally be "qualified dividend income" in the hands of individual U.S. holders, provided that a holding period requirement (more than 60 days of ownership, without protection from the risk of loss, during the 121-day period beginning 60 days before the ex-dividend date) and certain other requirements are met. The dividends will not be eligible for the dividends-received deduction generally allowed to corporate U.S. holders.

A U.S. holder generally may claim the amount of any Swiss withholding tax as either a deduction from gross income or a credit against U.S. federal income tax liability. However, the foreign tax credit is subject to numerous complex limitations that must be determined and applied on an individual basis. Generally, the credit cannot exceed the proportionate share of a U.S. holder's U.S. federal income tax liability that such U.S. holder's taxable income bears to such U.S. holder's worldwide taxable income. In applying this limitation, a U.S. holder's various items of income and deduction must be classified, under complex rules, as either "foreign source" or "U.S. source." In addition, this limitation is calculated separately with respect to specific categories of income. The amount of a distribution with respect to the common shares that is treated as a "dividend" may be lower for U.S. federal income tax purposes than it is for Swiss income tax purposes, potentially resulting in a reduced foreign tax credit for the U.S. holder. Each U.S. holder should consult its own tax advisors regarding the foreign tax credit rules.

While we do not currently plan to pay any dividends, the currency of any dividends that we may pay is subject to future determination. If we pay any such dividends in a currency other than U.S. dollars (a "foreign currency"), the amount of a distribution paid to a U.S. holder in a foreign currency will be the U.S. dollar value of the foreign currency calculated by reference to the spot exchange rate on the day the U.S. holder actually or constructively receives the distribution, regardless of whether the foreign currency is converted into U.S. dollars at that time. Any foreign currency gain or loss a U.S. holder realizes on a subsequent conversion of foreign currency into U.S. dollars will be U.S. source ordinary income or loss. If dividends received in a foreign currency are converted into U.S. dollars on the day they are actually or constructively received, a U.S. holder should not be required to recognize foreign currency gain or loss in respect of the dividend.

Sale, Exchange or Other Taxable Disposition of the Common Shares

A U.S. holder will generally recognize gain or loss for U.S. federal income tax purposes upon the sale, exchange or other taxable disposition of common shares in an amount equal to the difference between the U.S. dollar value of the amount realized from such sale or exchange and the U.S. holder's tax basis for those common shares. Subject to the discussion under "Passive Foreign Investment Company Considerations" below, this gain or loss will generally be a capital gain or loss. The adjusted tax basis in the common shares generally will be equal to the U.S. holder's U.S. dollar purchase price of such common shares. Capital gain from the sale, exchange or other taxable disposition of common shares of a non-corporate U.S. holder is generally eligible for a preferential rate of taxation applicable to capital gains, if the non-corporate U.S. holder's holding period determined at the time of such sale, exchange or other taxable disposition for such common shares exceeds one year (i.e., such gain is long-term taxable gain). The deductibility of capital losses for U.S. federal income tax purposes is subject to limitations under the Code. Any such gain or loss that a U.S. holder recognizes generally will be treated as U.S. source income or loss for foreign tax credit limitation purposes.

Medicare Tax

Certain U.S. holders that are individuals, estates or trusts are subject to a 3.8% tax on all or a portion of their "net investment income," which may include all or a portion of their dividend income and net gains from the disposition of common shares. Each U.S. holder that is an individual, estate or trust is urged to consult its tax advisors regarding the applicability of the Medicare tax to its income and gains in respect of its investment in the common shares.

Passive Foreign Investment Company Considerations

If we are classified as a passive foreign investment company in any taxable year, a U.S. holder would be subject to special rules generally intended to reduce or eliminate any benefits from the deferral of U.S. federal income tax that a U.S. holder could derive from investing in a non-U.S. company that does not distribute all of its earnings on a current basis.

A corporation organized outside the United States generally will be classified as a PFIC for U.S. federal income tax purposes in any taxable year in which, after applying certain look-through rules with respect to the income and assets of its subsidiaries, either: (i) at least 75% of its gross income is "passive income," referred to herein as the Income Test, or (ii) at least 50% of the average quarterly value of its total gross assets (which, assuming we were a non-publicly traded CFC for the year being tested, must be measured by the adjusted tax basis of our assets or, if we were a publicly traded CFC or not a CFC for such year, the total value of our assets may be determined in part by reference to the quarterly market value of our common shares, which may be volatile) is attributable to assets that produce "passive income" or are held for the production of "passive income," referred to herein as the Asset Test.

Passive income for this purpose generally includes dividends, interest, royalties, rents, gains from commodities and securities transactions, the excess of gains over losses from the disposition of assets which produce passive income, and includes amounts derived by reason of the temporary investment of funds raised in offerings of the common shares. If a non-U.S. corporation owns directly or indirectly at least 25% by value of the stock of another corporation, the non-U.S. corporation is treated for purposes of the PFIC tests as owning its proportionate share of the assets of the other corporation and as receiving directly its proportionate share of the other corporation's income. If we are classified as a PFIC in any year with respect to which a U.S. holder owns the common shares, absent the "deemed sale" election described below, we will continue to be treated as a PFIC with respect to such U.S. holder in all succeeding years during which the U.S. holder owns the common shares, regardless of whether we continue to meet the tests described above.

Whether we are a PFIC for any taxable year will depend on the composition of our income and the projected composition and estimated fair market values of our assets in each year, and because this is a factual determination made annually after the end of each taxable year, there can be no assurance that we will not be considered a PFIC in any taxable year. In addition, the composition of our income and assets will be affected by how, and how quickly, we use the cash proceeds from this offering in our business.

Because it is possible we were a PFIC for the 2017 taxable year, we provided information necessary for our shareholders to make a QEF election with respect to us for the 2017 taxable year on our website (www.crisprtx.com). For the 2017 taxable year, the amount of our ordinary earnings and net capital gain for purposes of the QEF inclusion rules was zero. Although we have not yet determined our PFIC status for the current taxable year, it is possible that we may be a PFIC for our current taxable year and future taxable years. Our status as a PFIC is a fact-intensive determination made on an annual basis and we cannot provide any assurances regarding our PFIC status for any past, current or future taxable years.

If we are a PFIC, and you are a U.S. holder, then unless you make one of the elections described below, a special tax regime will apply to both (a) any "excess distribution" by us to you (generally, your ratable portion of distributions in any year which are greater than 125% of the average annual distribution received by you in the shorter of the three preceding years or your holding period for the common shares) and (b) any gain realized on the sale or other disposition, including a pledge, of the common shares. Under this regime, any excess distribution and realized gain will be treated as ordinary income and will be subject to tax as if (a) the excess distribution or gain had been realized ratably over your holding period, (b) the amount deemed realized in each year had been subject to tax in each year of that holding period at the highest marginal rate for such year (other than income allocated to the current period or

any taxable period before we became a PFIC, which would be subject to tax at the U.S. holder's regular ordinary income rate for the current year and would not be subject to the interest charge discussed below), and (c) the interest charge generally applicable to underpayments of tax had been imposed on the taxes deemed to have been payable in those years. In addition, dividend distributions made to you will not qualify for the lower rates of taxation applicable to long-term capital gains discussed above under "Distributions."

If we are a PFIC for any year during which a U.S. holder holds the common shares, we must generally continue to be treated as a PFIC by that U.S. holder for all succeeding years during which the U.S. holder holds the common shares, unless we cease to meet the requirements for PFIC status and the U.S. holder makes a "deemed sale" election with respect to the common shares. If such election is made, the U.S. holder will be deemed to have sold the common shares it holds at their fair market value on the last day of the last taxable year in which we qualified as a PFIC, and any gain from such deemed sale would be subject to the consequences described above. After the deemed sale election, the U.S. holder's common shares with respect to which the deemed sale election was made will not be treated as shares in a PFIC unless we subsequently become a PFIC.

Certain elections exist that may alleviate some of the adverse consequences of PFIC status and would result in an alternative treatment (such as mark-to-market treatment) of the common shares. If a U.S. holder makes the mark-to-market election, the U.S. holder generally will recognize as ordinary income any excess of the fair market value of the common shares at the end of each taxable year over their adjusted tax basis, and will recognize an ordinary loss in respect of any excess of the adjusted tax basis of the common shares over their fair market value at the end of the taxable year (but only to the extent of the net amount of income previously included as a result of the mark-to-market election). If a U.S. holder makes the election, the U.S. holder's tax basis in the common shares will be adjusted to reflect these income or loss amounts. Any gain recognized on the sale or other disposition of common shares in a year when we are a PFIC will be treated as ordinary income and any loss will be treated as an ordinary loss (but only to the extent of the net amount of income previously included as a result of the mark-to-market election). The mark-to-market election is available only if we are a PFIC and the common shares are "regularly traded" on a "qualified exchange." The common shares will be treated as "regularly traded" in any calendar year in which more than a de minimis quantity of the common shares are traded on a qualified exchange on at least 1 days during each calendar quarter (subject to the rule that trades that have as one of their principal purposes the meeting of the trading requirement are disregarded). Nasdaq is a qualified exchange for this purpose and, consequently, if the common shares are regularly traded, the mark-to-market election will be available to a U.S. holder.

Alternatively, you may avoid the general tax treatment for PFICs described above by electing to treat us as a "qualified electing fund" under Section 1295 of the Code, or QEF, for each of the taxable years during your holding period that we are a PFIC. If a QEF election is not in effect for the first taxable year in your holding period in which we are a PFIC, a QEF election generally can only be made if you elect to make an applicable deemed sale or deemed dividend election on the first day of your taxable year in which the PFIC becomes a QEF pursuant to the QEF election. The deemed gain or deemed dividend recognized with respect to such an election would be subject to the general tax treatment of PFICs discussed above. We intend to determine our PFIC status at the end of each taxable year and to satisfy any applicable record keeping and reporting requirements that apply to a QEF, and will endeavor to provide to you, for each taxable year that we determine we are a PFIC, a PFIC Annual Information Statement containing information necessary for you to make a QEF election with respect to us. We may elect to provide such information on our website.

If you make a QEF election with respect to a PFIC, you will be taxed currently on your pro rata share of the PFIC's ordinary earnings and net capital gain (at ordinary income and capital gain rates, respectively) for each taxable year that the entity is a PFIC, even if no distributions were received. Any distributions we make out of our earnings and profits that were previously included in your income under the QEF election would not be taxable to you. Your tax basis in your common shares would be increased by an amount equal to any income included under the QEF election and decreased by any amount distributed on the common shares that is not included in your income. In addition, you will recognize capital gain or loss on the disposition of your common shares in an amount equal to the difference between the amount realized and your adjusted tax basis in the common shares, each as determined in U.S. dollars. Once made, a QEF election remains in effect unless invalidated or terminated by the IRS or revoked by the shareholder. A QEF election can be revoked only with the consent of the IRS. You will not be currently taxed on

the ordinary income and net capital gain of a PFIC with respect to which a QEF election was made for any taxable year of the non-U.S. corporation that such corporation does not satisfy the PFIC Income Test or Asset Test.

You are urged to consult your own tax advisors regarding the availability of, and procedure for making, any deemed gain, deemed dividend or QEF election.

If we are determined to be a PFIC, a U.S. holder will generally be treated as owning a proportionate amount (by value) of shares owned by us in any direct or indirect subsidiaries that are also PFICs, each a lower-tier PFIC, and will be subject to similar adverse rules with respect to distributions from, or dispositions of, such lower-tier PFICs, in each case as if such U.S. holder held such shares directly (even if such U.S. holder does not receive the proceeds of such distributions or dispositions directly). We have not determined whether any of our subsidiaries (including TRACR Hematology Ltd. and CRISPR Therapeutics Ltd.) are or may be lower-tier PFICs for the 2017 taxable year, the current taxable year or future taxable years, and we do not intend to do so. Because of recent changes pursuant to the Tax Reform Act which may cause our non-United States subsidiaries to be treated as CFCs, even if we are not treated as a CFC, it is possible that our non-United States subsidiaries are also PFICs. We also do not intend to make available the information necessary for U.S. holders to make a QEF election with respect to any lower-tier PFICs and therefore you should expect that you will not be able to make a QEF election with respect to them. The mark-to-market election is not permitted for the shares of any of our subsidiaries that are also classified as PFICs. U.S. holders are urged to consult their tax advisors about the application of the PFIC and CFC rules to any of our subsidiaries.

If a U.S. holder owns common shares during any taxable year in which we are a PFIC, the U.S. holder generally will be required to file an IRS Form 8621 (Information Return by a Shareholder of a Passive Foreign Investment Company or Qualified Electing Fund) with respect to us and any lower-tier PFIC such U.S. holder is treated as owning pursuant to the rules described above, generally with the U.S. holder's federal income tax return for that year.

The U.S. federal income tax rules relating to PFICs are complex. Prospective U.S. investors are urged to consult their own tax advisers with respect to the acquisition, ownership and disposition of the common shares, the consequences to them of an investment in a PFIC, any elections available with respect to the common shares (including the unavailability of the market-to-market and QEF elections with respect to any lower-tier PFICs) and the IRS information reporting obligations applicable in connection with the acquisition, ownership and disposition of the common shares.

Backup Withholding and Information Reporting

U.S. holders generally will be subject to information reporting requirements with respect to dividends on the common shares and on the proceeds from the sale, exchange or disposition of common shares that are paid within the United States or through U.S.-related financial intermediaries (and certain subsidiaries thereof), unless the U.S. holder is an "exempt recipient." In addition, U.S. holders may be subject to backup withholding on such payments, unless the U.S. holder provides a taxpayer identification number and a duly executed IRS Form W-9 or otherwise establishes an exemption. Backup withholding is not an additional tax, and the amount of any backup withholding will be allowed as a credit against a U.S. holder's U.S. federal income tax liability and may entitle such holder to a refund, provided that the required information is timely furnished to the IRS.

Foreign Asset Reporting

Certain U.S. holders who are individuals are required to report information relating to an interest in the common shares, subject to certain exceptions (including an exception for shares held in accounts maintained by U.S. financial institutions) by filing IRS Form 8938 (Statement of Specified Foreign Financial Assets) with their federal income tax return. U.S. holders are urged to consult their tax advisors regarding their information reporting obligations, if any, with respect to their ownership and disposition of the common shares.

THE DISCUSSION ABOVE IS A SUMMARY OF MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS TO U.S. HOLDERS. IT DOES NOT COVER ALL TAX MATTERS THAT MAY BE OF IMPORTANCE TO A PARTICULAR PROSPECTIVE INVESTOR. EACH PROSPECTIVE INVESTOR IS URGED TO CONSULT ITS OWN TAX ADVISOR ABOUT THE TAX CONSEQUENCES TO IT OF AN INVESTMENT IN THE SHARES IN LIGHT OF THE INVESTOR'S OWN CIRCUMSTANCES.

LEGAL MATTERS

The validity of the common shares and certain other matters of Swiss law will be passed upon for us by Vischer AG, Zurich, Switzerland. Certain matters of U.S. federal and Delaware state law will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts. Jefferies LLC is being represented in connection with this offering by Cooley LLP, New York, New York.

EXPERTS

The consolidated financial statements of CRISPR Therapeutics AG appearing in CRISPR Therapeutics AG's Annual Report (Form 10-K) for the year ended December 31, 2017 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein and incorporated herein by reference. Such financial statements are, and audited financial statements to be included in subsequently filed documents will be, incorporated herein in reliance upon the report of Ernst & Young LLP pertaining to such financial statements (to the extent covered by consents filed with the Securities and Exchange Commission) given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at www.crisprtx.com. Our website and the information contained therein or connected thereto are not a part of this prospectus supplement or the accompanying prospectus or the registration statement of which they form a part, and are not incorporated by reference in this prospectus supplement or the accompanying prospectus or the registration statement of which they form a part. You may also read and copy any document we file at the SEC's Public Reference Room, 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room.

This prospectus supplement and the accompanying prospectus is part of a registration statement we filed with the SEC. This prospectus supplement and the accompanying prospectus, filed as part of the registration statement, omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information on us and our consolidated subsidiaries and the securities we are offering. Statements in this prospectus supplement concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements. You can obtain a copy of the registration statement from the SEC at the address listed above or from the SEC's website.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus supplement and the accompanying prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus supplement is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus supplement. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement, the accompanying prospectus or in any document previously incorporated by reference have been modified or superseded. This

prospectus supplement incorporates by reference the documents listed below (File No. 001-37923) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) between the date of this prospectus supplement and the termination of this offering:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2017, which was filed with the SEC on March 8, 2018, including the information specifically incorporated by reference into the Annual Report on Form 10-K from our definitive proxy statement (other than information furnished rather than filed) for the 2018 Annual General Meeting of Shareholders, which was filed with the SEC on April 18, 2018:
- Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2018, which was filed with the SEC on May 8, 2018;
- Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2018, which was filed with the SEC on August 7, 2018;
- Current Reports on Form 8-K filed with the SEC on January 5, 2018, May 30, 2018 and June 1, 2018, to the extent the information in such reports is filed and not furnished; and
- The description of our common shares contained in our Registration Statement on Form 8-A filed with the SEC on October 18, 2016, including any amendments or reports filed for the purpose of updating such description.

You may request a copy of these filings, at no cost, by contacting us, either orally or in writing, at the following:

CRISPR Therapeutics AG
Baarerstrasse 14
6300 Zug
Switzerland
Attn: Investor Relations
ir@crisprtx.com
Phone: 339-970-2843

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PROSPECTUS

CRISPR THERAPEUTICS AG

\$300,000,000

Common Shares
Debt Securities
Warrants
Units
Subscription Rights

From time to time, we may offer up to \$300,000,000 of any combination of the securities described in this prospectus in one or more offerings. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable anti-dilution provisions.
This prospectus provides a general description of the securities we may offer. Each time we offer securities, we will provide specific terms of the securities offered in a supplement to this prospectus. The prospectus supplement may also add, update or change information contained in this prospectus. You should carefully read this prospectus and the applicable prospectus supplement, as well as any documents incorporated by reference, before you invest in any of the securities being offered.
This prospectus may not be used to consummate a sale of any securities unless accompanied by a prospectus supplement.
Our common shares trade on the NASDAQ Global Market under the symbol "CRSP." On November 8, 2017, the last reported sale price of our common shares was \$17.94 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on the NASDAQ Global Market or any securities market or other exchange of the securities, if any, covered by the prospectus supplement.
We will sell these securities directly to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts or over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.
Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" contained in the applicable prospectus supplement and under similar headings in the other documents that are incorporated by reference into this prospectus as described on page 3 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or

The date of this prospectus is December 4, 2017.

determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total aggregate offering price of \$300,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide one or more prospectus supplements that will contain specific information about the terms of the offering. The applicable prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and the accompanying prospectus supplement together with the additional information described under the heading "Where You Can Find More Information" beginning on page 32 of this prospectus.

You should rely only on the information contained in or incorporated by reference in this prospectus, the accompanying prospectus supplement or in any related free writing prospectus filed by us with the SEC. We have not authorized anyone to provide you with different information. This prospectus and the accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in the accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Unless the context indicates otherwise, as used in this prospectus, the terms "CRISPR," "CRISPR Therapeutics," "the Company," "we," "us" and "our" refer to CRISPR Therapeutics AG, a Swiss stock corporation (*Aktiengesellschaft*) and its consolidated subsidiaries. All trademarks or trade names referred to in this prospectus are the property of their respective owners.

CRISPR THERAPEUTICS AG

Company Overview

We are a leading gene editing company focused on the development of CRISPR/Cas9-based therapeutics. CRISPR/Cas9 stands for Clustered, Regularly Interspaced Short Palindromic Repeats (CRISPR) Associated protein-9 and is a revolutionary technology for gene editing, the process of precisely altering specific sequences of genomic DNA. We are applying this technology to potentially treat a broad set of both rare and common diseases by disrupting, correcting or regulating disease-related genes. We believe that our scientific expertise, together with our gene editing approach, may enable an entirely new class of highly effective and potentially curative treatments for patients for whom current biopharmaceutical approaches have had limited success. Our most advanced programs target beta-thalassemia and sickle cell disease, two hemoglobinopathies that have high unmet medical need.

The use of CRISPR/Cas9 for gene editing was derived from a naturally occurring viral defense mechanism in bacteria and has been described by leading scientific journals as a breakthrough technology. The application of CRISPR/Cas9 for gene editing was co-invented by one of our scientific founders, Dr. Emmanuelle Charpentier, a director of the Max Planck Institute for Infection Biology in Berlin. Dr. Charpentier and her collaborators published work elucidating the mechanism by which the Cas9 endonuclease, a key component of CRISPR/Cas9, can be programmed to cut double-stranded DNA at specific locations. We have acquired rights to the foundational intellectual property encompassing CRISPR/Cas9 and related technologies from Dr. Charpentier, and continue to strengthen our intellectual property estate through our own research and additional in-licensing efforts, furthering our leadership in the development of CRISPR/Cas9-based therapeutics.

Our product development and partnership strategies are designed to exploit the full potential of the CRISPR/Cas9 platform while maximizing the probability of successfully developing our product candidates. We are pursuing a two-pronged product development strategy utilizing both *ex vivo* and *in vivo* approaches. Our most advanced programs use an *ex vivo* approach, whereby cells are harvested from a patient, treated with a CRISPR/Cas9-based therapeutic and reintroduced. We believe that an *ex vivo* approach is less technically challenging than an *in vivo* approach. We have chosen to conduct our lead programs in hemoglobinopathies given the relative ease of editing genes *ex vivo*, the significant unmet medical need associated with beta-thalassemia and sickle cell disease and the well-understood genetics of these diseases. Beyond these lead programs, we are pursuing a number of additional *ex vivo* applications, as well as select *in vivo* applications, whereby the CRISPR/Cas9 product candidate is delivered directly to target cells within the human body. Our initial *in vivo* applications will leverage well-established delivery technologies for gene-based therapeutics.

Given the numerous potential therapeutic applications for CRISPR/Cas9, we have partnered strategically to broaden the indications we can pursue and accelerate development of programs by accessing specific disease-area expertise. In particular, we established a joint venture with Bayer AG and its subsidiaries, or Bayer, in which we have a 50% interest, and a collaboration agreement with Vertex Pharmaceuticals Incorporated, or Vertex, in order to pursue specific indications where these companies have outstanding and distinctive capabilities. The significant resource commitments by our partners underscore the potential of our platform, as well as their dedication to developing transformative CRISPR/Cas9-based treatments.

Our mission is to create transformative gene-based medicines for serious human diseases. We believe that our highly experienced team, together with our scientific expertise, product development strategy, partnerships and intellectual property position us as a leader in the development of CRISPR/Cas9-based therapeutics.

We are a Swiss stock corporation (*Aktiengesellschaft*) organized under the laws of Switzerland. We were incorporated on October 28, 2013 in Basel, Switzerland. Our principal offices are located at Baarerstrasse 14, 6300 Zug, Switzerland and our principal research operations are in Cambridge, Massachusetts. Our telephone number is +41 561 3277 Our website is located at http://www.crisprtx.com. We do not incorporate by reference into this prospectus the information on, or accessible through, our website, and you should not consider it as part of this prospectus.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully review the risks and uncertainties described under the heading "Risk Factors" contained in the applicable prospectus supplement, and under similar headings in the other documents that are incorporated by reference into this prospectus, before deciding whether to purchase any of the securities being registered pursuant to the registration statement of which this prospectus is a part. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities, and the occurrence of any of these risks might cause you to lose all or part of your investment. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference contain forward-looking statements. These are based on our management's current beliefs, expectations and assumptions about future events, conditions and results and on information currently available to us. Discussions containing these forward-looking statements may be found, among other places, in the Sections entitled "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference from our most recent Annual Report on Form 10-K and other filings we make with the SEC from time to time, which are incorporated by reference herein in their entirety, together with other information in this prospectus, the information and documents incorporated by reference in this prospectus, and in any prospectus supplement or free writing prospectus that we authorize for use in connection with this offering.

Any statements in this prospectus, or incorporated herein, about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and are forward-looking statements. Within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, these forward-looking statements include statements regarding, among other things, our future discovery and development efforts, our future operating results and financial position, our business strategy, and other objectives for our operations.

In some cases, you can identify forward-looking statements by the words "may," "might," "can," "will," "to be," "could," "would," "should," "expect," "intend," "plan," "objective," "anticipate," "believe," "estimate," "predict," "project," "potential," "likely," "continue" and "ongoing," or the negative of these terms, or other comparable terminology intended to identify statements about the future, although not all forward-looking statements contain these words. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements.

You should refer to the "Risk Factors" section contained in the applicable prospectus supplement and under similar headings in the other documents that are incorporated by reference into this prospectus, for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. Given these risks, uncertainties and other factors, many of which are beyond our control, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate, and you should not place undue reliance on these forward-looking statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to revise any forward-looking statements to reflect events or developments occurring after the date of this prospectus, even if new information becomes available in the future.

RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth our ratio of earnings to fixed charges for the periods shown. You should read this table in conjunction with the financial statements and notes incorporated by reference in this prospectus.

	Nine Months Ended		Years Ended December 31,		October 28, 2013 (inception) to
	September 30,				December 31,
	2017	2016	2015	2014	2013
Ratio of Earnings to Fixed Charges	N/A	N/A	N/A	N/A	N/A

For purposes of calculating the ratios in the table above, earnings consist of net loss before income taxes. Fixed charges include any interest expense on indebtedness and an estimate of the interest expense within rental expense.

Due to our net losses for periods, earnings were insufficient to cover fixed charges for such periods and we are unable to disclose a ratio of earnings to fixed charges for such periods. The dollar amount of the deficiency in earnings available for fixed charges for periods was approximately \$68.4 million, \$23.2 million, \$25.8 million, \$6.8 million and \$2.1 million, respectively.

USE OF PROCEEDS

Except as described in any applicable prospectus supplement, we currently intend to use the net proceeds from the sale of the securities offered under this prospectus for general corporate purposes. General corporate purposes may include research and development and clinical development costs to support the advancement of our product candidates and the expansion of our research development programs; working capital; capital expenditures; office expansion; and other general corporate purposes. We will set forth in the applicable prospectus supplement our intended use for the net proceeds received from the sale of any securities sold pursuant to the prospectus supplement. Pending these uses, we intend to invest the net proceeds in investment-grade, interest-bearing securities.

The following summary description of our capital shares is based on the provisions of our articles of association, as well as our organizational rules and the applicable provisions of Swiss law. This information is qualified entirely by reference to the applicable provisions of our articles of association, our organizational rules and Swiss law. For information on how to obtain copies of our articles of association and organizational rules, which are exhibits to our registration statement on Form S-1 filed with the Securities and Exchange Commission, see "Where You Can Find Additional Information."

Share Capital

Our issued share capital is CHF 1,207,610.22 and is fully paid-in. It is divided into 40,253,674 common shares with a nominal value of CHF 0.03 each.

Authorized Share Capital

As of the date of this prospectus, our articles of association authorize the board of directors to increase our share capital at any time until June 30, 2018 by a maximum aggregate amount of CHF 353,970.15 through the issuance of not more than 11,799,005 common shares, which would have to be fully paid-in, with a nominal value of 0.03 CHF each. As of November 1, 2017, we had 41,002,771 common shares outstanding.

Ordinary Capital Increase, Authorized And Conditional Share Capital

Under Swiss law, we may increase our share capital (*Aktienkapital*) with a resolution of the general meeting of shareholders (ordinary capital increase) that must be carried out by the board of directors within three months of the general meeting in order to become effective. Under our articles of association, in the case of subscription and increase against payment of contributions in cash, a resolution passed by a simple majority of the shares represented at the general meeting of shareholders regardless of abstentions or empty or invalid votes is required. In the case of subscription and increase against contributions in kind or to fund acquisitions in kind, when shareholders' statutory pre-emptive rights are withdrawn or where transformation of reserves into share capital is involved, a resolution passed by two-thirds of the shares represented at a general meeting of shareholders and the absolute majority of the nominal amount of the shares represented is required.

Furthermore, under the Swiss Code of Obligations, or the CO, our shareholders, by a resolution passed by two-thirds of the shares represented at a general meeting of shareholders and the absolute majority of the nominal amount of the shares represented, may empower our board of directors to issue shares of a specific aggregate nominal amount up to a maximum of 50% of the share capital in the form of:

- conditional capital (bedingtes Kapital) for the purpose of issuing shares in connection with, among other things, (i) option and conversion rights
 granted in connection with convertible bonds of the Company or one of our subsidiaries or (ii) grants of rights to employees, members of our
 board of directors or consultants of the Company or of one of our subsidiaries or other persons providing services to the Company or a subsidiary
 to subscribe for new shares (conversion or option rights); or
- authorized capital (*genehmigtes Kapital*) to be utilized by the board of directors within a period determined by the shareholders but not exceeding two years from the date of the shareholder approval.

Pre-Emptive Rights

Pursuant to the CO, shareholders have pre-emptive rights (*Bezugsrechte*) to subscribe for new issuances of shares. With respect to conditional capital in connection with the issuance of conversion rights, convertible bonds or similar debt instruments, shareholders have advance subscription rights (*Vorwegzeichnungsrechte*) for the subscription of conversion rights, convertible bonds or similar debt instruments.

A resolution passed at a general meeting of shareholders by two-thirds of the shares represented and the absolute majority of the nominal value of the shares represented may authorize our board of directors to withdraw or limit pre-emptive rights or advance subscription rights in certain circumstances.

If pre-emptive rights are granted, but not exercised, the board of directors may allocate the pre-emptive rights as it elects.

With respect to our authorized share capital, the board of directors is authorized by our articles of association to withdraw or to limit the pre-emptive rights of shareholders, and to allocate them to third parties or to us, in the event that the newly issued shares are used for the following purposes:

- if the issue price of the new registered shares is determined by reference to the market price;
- for the acquisition of an enterprise, part(s) of an enterprise or participations, or for the financing or refinancing of any of such transactions, or in the event of share placement for the financing or refinancing of such transactions;
- for purposes of broadening the shareholder constituency of the Company in certain financial or investor markets, for purposes of the participation of strategic partners, or in connection with the listing or registration of new registered shares on domestic or foreign stock exchanges;
- for purposes of granting an over-allotment option of up to 20% of the total number of registered shares in a placement or sale of registered shares to the respective initial purchaser(s) or underwriter(s);
- for raising of capital (including private placements) in a fast and flexible manner which probably could not be reached without the exclusion of the statutory pre-emptive right of the existing shareholders;
- following a shareholder or a group of shareholders acting in concert having accumulated shareholdings in excess of 15% of the share capital
 registered in the commercial register without having submitted to the other shareholders a takeover offer recommended by the board of directors,
 or for the defense of an actual, threatened or potential takeover bid, in relation to which the board of directors, upon consultation with an
 independent financial adviser retained by it, has not recommended to the shareholders acceptance on the basis that the board of directors has not
 found the takeover bid to be financially fair to the shareholders; or
- for other valid grounds in the sense of Article 652b para. 2 of the CO.

Conditional Share Capital for Bonds and Similar Debt Instruments

Our share capital may be increased by a maximum aggregate amount of CHF 147,591.00 through the issuance of not more than 4,919,700 common shares, which would have to be fully paid-in, with a nominal value of CHF 0.03 each, by the exercise of conversion and/or option or warrant rights granted in connection with bonds or similar instruments of the Company or one of our subsidiaries, including convertible debt instruments. Shareholders will not have pre-emptive rights in such circumstances. The holders of convertible bonds are entitled to the new shares upon the occurrence of the applicable conversion feature.

When issuing convertible bonds, the board of directors is authorized to withdraw or to limit the advance right of shareholders to subscribe to the convertible bond issuance:

- for the purpose of financing or refinancing the acquisition of enterprises, divisions thereof, or of participations or of newly planned investments of the Company; or
- if the issuance occurs in international capital markets or through private placements.

To the extent that the advance subscription rights are withdrawn, (i) the instruments are to be issued at market conditions; (ii) the term to exercise the option or conversion rights may not exceed 10 years as of the date of the issuance for warrants and twenty years for conversion rights; and (iii) the exercise price for the new shares must at least correspond to the market conditions at the time of the issuance of the instruments.

Conditional Share Capital for Employee Benefit Plans

Our share capital may, to the exclusion of the pre-emptive rights of shareholders, be increased by a maximum aggregate amount of CHF 372,557.73 through the issuance of not more than 12,418,591 common shares, which would have to be fully paid-in, with a nominal value of CHF 0.03 each, by the exercise of option or conversion rights that have been granted to employees, members of the board of directors or consultants of the Company or of one of our subsidiaries or other persons providing services to the Company or a subsidiary through one or more employee benefit plans created by the board of directors.

Uncertificated Securities

Our shares are uncertificated securities (*Wertrechte*, within the meaning of art. 973c of the CO) and, when administered by a financial intermediary (*Verwahrungsstelle*, within the meaning of the Federal Act on Intermediated Securities, "FISA"), qualify as intermediated securities (*Bucheffekten*, within the meaning of the FISA). In accordance with art. 973c of the CO, we maintain a non-public register of uncertificated securities (*Wertrechtebuch*). We may at any time convert uncertificated securities into share certificates (including global certificates) into uncertificated securities. Following entry in the share register, a shareholder may at any time request from us a written confirmation in respect of the shares held by such shareholder, as reflected in the share register. Shareholders are not entitled, however, to request the printing and delivery of certificates. We may print and deliver certificates for shares at any time.

Voting Rights

The shareholders exercise their voting rights at the general meetings of shareholders in proportion to the nominal value of the shares belonging to them. The holders of our common shares do not have cumulative voting rights in the election of directors, as cumulative voting is not permitted under Swiss law. The shares are not divisible. The right to vote and the other rights of share ownership may only be exercised by shareholders (including any nominees) or usufructuaries who are entered in our share register at the cut-off date determined by the board of directors and by persons who are entitled by law to the voting right of a share. Each shareholder may be represented by the independent proxy holder (annually elected by the general meeting of shareholders), another registered shareholder or third person with written authorization to act as proxy or the shareholder's legal representative. The requirements regarding powers of attorney and instructions are determined by the board of directors.

Our articles contain provisions that prevent investors from acquiring voting rights exceeding 15% of the outstanding share capital. Specifically, no individual or legal entity may, directly or indirectly, control voting rights with respect to 15% or more of the registered share capital recorded in the Commercial Register. In the event that a shareholder should exceed the 15% ownership threshold, the registered shares exceeding the limit of 15% shall be entered in our share registered as shares without voting rights. The board of directors may in special cases approve exceptions to the above regulations.

Furthermore, with respect to our authorized share capital, the board of directors is authorized to withdraw or limit the preemptive rights of the shareholders and to allot them to third parties following a shareholder or a group of shareholders acting in concert having accumulated shareholdings in excess of 15% of the share capital registered in the commercial register without having submitted to the other shareholders a takeover offer recommended by the board of directors, or for the defense of an actual, threatened or potential takeover bid, in relation to which the board of directors, upon consultation with an independent financial adviser retained by it, has not recommended to the shareholders acceptance on the basis that the board of directors has not found the takeover bid to be financially fair to the shareholders.

Our articles contain provisions that persons who do not expressly declare in the registration application that they are holding the shares on their own account (thereafter: nominees) shall forthwith be entered on the share register

as shareholders with voting rights up to a maximum of 3% of the share capital. Beyond that limit, registered shares of nominees shall only be entered as voting if the nominees in question confirm in writing that they are willing to disclose the names, addresses and shareholdings of the persons on whose account they hold 0.5% or more of the share capital. The board of directors concludes agreements with nominees that among other things govern the representation of shareholders and the voting rights.

Registration Rights

We and some of the holders of our common shares have entered into a registration rights agreement. The registration rights provisions of this agreement provide those holders with demand, piggyback and Form S-3 registration rights with respect to the common shares currently held by them.

Demand Registration Rights

The holders of the registrable securities are entitled to certain demand registration rights. The holders of at least two-thirds (66 2/3%) of the registrable securities then outstanding may make a written request that we register all or a portion of their registrable securities, subject to certain specified exceptions. Such request for registration must cover securities the aggregate proceeds of which, after payment of underwriting discounts, commissions and other expenses related to such registration, would exceed \$10,000,000. In no event will we be required to effect more than two (2) demand registrations.

Piggyback Registration Rights

If we propose to register for offer and sale any of our securities under the Securities Act in another offering for cash, either for our own account or for the account of other security holders, the holders of registrable securities will be entitled to certain "piggyback" registration rights allowing them to include their registrable securities in such registration, subject to certain marketing and other limitations. As a result, whenever we propose to file a registration statement under the Securities Act in connection with a public offering for our own account or for the account of any shareholder, the holders of these registrable securities are 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 their registrable securities in the registration.

Registration on Form S-3

The holders of registrable securities are entitled to certain Form S-3 registration rights. Any holder of registrable securities can make a request that we register for offer and sale all or any portion of their registrable securities on Form S-3 or any similar short form registration statement if we are qualified to file a registration statement on Form S-3, subject to certain specified exceptions. Such request for registration on Form S-3 must cover securities the aggregate offering price of which, before payment of the underwriting discounts and commissions, equals or exceeds \$2.0 million. We will not be required to effect more than one (1) registration on Form S-3 within any 12-month period.

Expenses of Registration

We will pay all expenses relating to any demand, piggyback or Form S-3 registration, other than underwriting discounts and commissions, subject to specified conditions and limitations.

Termination of Registration Rights

The registration rights granted under the registration rights agreement will terminate upon the fifth anniversary of the completion of our initial public offering, which would be in October 2021, or, if earlier, with respect to a particular holder, at such time as that holder and its affiliates may sell all of their common shares pursuant to Rule 144 under the Securities Act of 1933, as amended, without any restrictions on volume.

COMPARISON OF SWISS LAW AND DELAWARE LAW

The Swiss laws applicable to Swiss corporations and their shareholders differ from laws applicable to U.S. corporations and their shareholders. The following table summarizes significant differences in shareholder rights between the provisions of the Swiss Code of Obligations (*Schweizerisches Obligationenrecht*) and the Swiss Ordinance against excessive compensation in listed stock corporations applicable to our Company, as implemented by the Company in its Articles of Association, and the Delaware General Corporation Law applicable to companies incorporated in Delaware and their shareholders. Please note that this is only a general summary of certain provisions applicable to companies in Delaware. Certain Delaware companies may be permitted to exclude certain of the provisions summarized below in their charter documents.

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Mergers and similar arrangements

Under the Delaware General Corporation Law, with certain exceptions, a merger, consolidation, sale, lease or transfer of all or substantially all of the assets of a corporation must be approved by the board of directors and a majority of the outstanding shares entitled to vote thereon. A shareholder of a Delaware corporation participating in certain major corporate transactions may, under certain circumstances, be entitled to appraisal rights pursuant to which such shareholder may receive cash in the amount of the fair value of the shares held by such shareholder (as determined by a court) in lieu of the consideration such shareholder would otherwise receive in the transaction. The Delaware General Corporation Law also provides that a parent corporation, by resolution of its board of directors, may merge with any subsidiary, of which it owns at least 90.0% of each class of share capital without a vote by the shareholders of such subsidiary. Upon any such merger, dissenting shareholders of the subsidiary would have appraisal rights.

Under Swiss law, with certain exceptions, a merger or a demerger of the corporation or a sale of all or substantially all of the assets of a corporation must be approved by two-thirds of the voting rights represented at the respective general meeting of shareholders as well as the absolute majority of the nominal value of shares represented at such shareholders' meeting. A shareholder of a Swiss corporation participating in a statutory merger or demerger pursuant to the Swiss Merger Act (Fusionsqesetz) can file a lawsuit against the surviving company. If the consideration is deemed "inadequate," such shareholder may, in addition to the consideration (be it in shares or in cash) receive an additional amount to ensure that such shareholder receives the fair value of the shares held by such shareholder. Swiss law also provides that if the merger agreement provides only for a compensation payment, at least 90.0% of all members in the transferring legal entity, who are entitled to vote, shall approve the merger agreement.

Shareholders' suits

Class actions and derivative actions generally are available to shareholders of a Delaware corporation for, among other things, breach of fiduciary duty, corporate waste and actions not taken in accordance with applicable law. In such actions, the court has discretion to permit the winning party to recover attorneys' fees incurred in connection with such action.

Class actions and derivative actions as such are not available under Swiss law. Nevertheless, certain actions may have a similar effect. A shareholder is entitled to bring suit against directors for breach of their duties and claim the payment of the company's losses or damages both to the corporation and, subject to certain conditions, to the individual shareholder and creditors. Likewise, an appraisal lawsuit won by a shareholder may indirectly compensate all shareholders.

Under Swiss law, the winning party is generally entitled to recover or to partially recover attorneys' fees incurred in connection with such action, *provided*, *however*, that the court has broad discretion to permit the shareholder whose claim has been dismissed to recover attorneys' fees incurred to the extent he or she acted in good faith.

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Shareholder vote on board and management compensation

Under the Delaware General Corporation Law, the board of directors has the authority to fix the compensation of directors, unless otherwise restricted by the certificate of incorporation or bylaws.

Pursuant to the Swiss Ordinance against excessive compensation in listed stock corporations (*Verordnung gegen übermässige Vergütungen bei börsenkotierten Aktiengesellschaften*), the general meeting of shareholders has the non-transferable right, amongst others, to vote on the fixed and on the variable compensation of the members of the board of directors, of the executive management and of the advisory boards.

Annual vote on board renewal

Unless directors are elected by written consent in lieu of an annual meeting, directors are elected in an annual meeting of stockholders on a date and at a time designated by or in the manner provided in the bylaws. Re-election is possible.

The general meeting of shareholders elects annually (i.e. term of office until the end of the following general meeting of shareholders) the members of the board of directors and the members of the compensation, committee individually for a term of office of one year. Re-election is possible.

Classified boards are permitted.

Indemnification of directors and executive management and limitation of liability

The Delaware General Corporation Law provides that a certificate of incorporation may contain a provision eliminating or limiting the personal liability of directors (but not other controlling persons) of the corporation for monetary damages for breach of a fiduciary duty as a director, except no provision in the certificate of incorporation may eliminate or limit the liability of a director for:

- any breach of a director's duty of loyalty to the corporation or its shareholders;
- acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- statutory liability for unlawful payment of dividends or unlawful stock purchase or redemption; or
- any transaction from which the director derived an improper personal benefit.

A Delaware corporation may indemnify any person who was or is a party or is threatened to be made a party to any proceeding, other than an action by or on behalf of the corporation, because the person is or was a director

Under Swiss corporate law, an indemnification by the corporation of a director or member of the executive management in relation to potential personal liability is not effective to the extent the director or member of the executive management intentionally or negligently violated his or her corporate duties towards the corporation. (Certain views advocate that at least a grossly negligent violation is required to exclude the indemnification.) Furthermore, the general meeting of shareholders may discharge the directors and members of the executive management from liability from actions taken during the past financial vear. Such discharge is effective only, however, for disclosed facts and only as against the company and those shareholders who approved the discharge or who have since acquired their shares in full knowledge of the discharge. Most violations of corporate law are regarded as violations of duties towards the corporation rather than towards the shareholders. In addition, indemnification of other controlling persons is not permitted under Swiss corporate law, including shareholders of the corporation.

The articles of association of a Swiss corporation may also set forth that the corporation shall indemnify and hold harmless, to the extent permitted by the law, the directors and executive managers out

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or officer, against liability incurred in connection with the proceeding if the director or officer acted in good faith and in a manner reasonably believed to be in, or not opposed to, the best interests of the corporation; and the director or officer, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful.

Unless ordered by a court, any foregoing indemnification is subject to a determination that the director or officer has met the applicable standard of conduct:

- by a majority vote of the directors who are not parties to the proceeding, even though less than a quorum;
- by a committee of directors designated by a majority vote of the eligible directors, even though less than a quorum;
- by independent legal counsel in a written opinion if there are no eligible directors, or if the eligible directors so direct; or
- · by the shareholders.

Moreover, a Delaware corporation may not indemnify a director or officer in connection with any proceeding in which the director or officer has been adjudged to be liable to the corporation unless and only to the extent that the court determines that, despite the adjudication of liability but in view of all the circumstances of the case, the director or officer is fairly and reasonably entitled to indemnity for those expenses which the court deems proper.

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of assets of the corporation against threatened, pending or completed

Also, a corporation may enter into and pay for directors' and officers' liability insurance which may cover negligent acts as well.

Directors' fiduciary duties

A director of a Delaware corporation has a fiduciary duty to the corporation and its shareholders. This duty has two components:

- · the duty of care; and
- · the duty of loyalty.

The duty of care requires that a director act in good faith, with the care that an ordinarily prudent person would exercise under similar circumstances. Under this duty, a director must inform himself or herself of, and disclose to shareholders, all material information reasonably available regarding a significant transaction.

The board of directors of a Swiss corporation manages the business of the corporation, unless responsibility for such management has been delegated to the executive management (for example by organizational rules and comparable bylaws). However, there are several non-transferable duties of the board of directors:

- the overall management of the corporation and the issuing of all necessary directives;
- the determination of the corporation's organization;
- the organization of the accounting, financial control and financial planning systems as required for the management of the corporation;

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The duty of loyalty requires that a director act in a manner he or she reasonably believes to be in the best interests of the corporation. He or she must not use his or her corporate position for personal gain or advantage. This duty prohibits self-dealing by a director and mandates that the best interest of the corporation and its shareholders take precedence over any interest possessed by a director, officer or controlling shareholder and not shared by the shareholders generally. In general, actions of a director are presumed to have been made on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the corporation. However, this presumption may be rebutted by evidence of a breach of one of the fiduciary duties.

Should such evidence be presented concerning a transaction by a director, a director must prove the procedural fairness of the transaction, and that the transaction was of fair value to the corporation.

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- the appointment and dismissal of persons entrusted with managing and representing the corporation;
- overall supervision of the persons entrusted with managing the corporation, in particular with regard to compliance with the law, articles of association, operational regulations and directives;
- compilation of the annual report, preparation for the general meeting, the compensation report and implementation of its resolutions; and
- notification of the court in the event that the company is overindebted.

The members of the board of directors must perform their duties with all due diligence and safeguard the interests of the corporation in good faith. They must afford the shareholders equal treatment in equal circumstances.

The burden of proof for a violation of these duties is with the corporation or with the shareholder bringing a suit against the director.

Shareholder action by written consent

A Delaware corporation may, in its certificate of incorporation, eliminate the right of shareholders to act by written consent.

Shareholders of a Swiss corporation may only exercise their voting rights in a general meeting of shareholders and may not act by written consents. The articles of association must allow for (independent) proxies to be present at a general meeting of shareholders. The instruction of such (independent) proxies may occur in writing or electronically.

Shareholder proposals

A shareholder of a Delaware corporation has the right to put any proposal before the annual meeting of shareholders, provided it complies with the notice provisions in the governing documents. A special meeting may be called by the board of directors or any other person authorized to do so in the governing documents, but shareholders may be precluded from calling special meetings.

At any general meeting of shareholders any shareholder may put proposals to the meeting if the proposal is part of an agenda item. No resolution may be made on proposals relating to the agenda items that were not duly notified. Unless the articles of association provide for a lower threshold or for additional shareholders' rights:

- shareholders together representing at least 10% of the share capital may demand that a general meeting of shareholders be called for specific agenda items and specific proposals; and
- shareholders together representing shares with a nominal value of at least CHF 1.0 million may demand that an agenda item including a specific proposal be put on the agenda for a regularly scheduled general meeting of shareholders, provided such request is made with appropriate notice.

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Any shareholder can propose candidates for election as directors provided that the election of board members and the names of the candidates have been included as an agenda item.

In addition, any shareholder is entitled, at a general meeting of shareholders and without advance notice, to (i) request information from the board on the affairs of the company (note, however, that the right to obtain such information is limited), (ii) request information from the auditors on the methods and results of their audit, (iii) request to convene an extraordinary general meeting or (iv) request to carry out a special audit and to appoint a special auditor.

Cumulative voting

Under the Delaware General Corporation Law, cumulative voting for elections of directors is not permitted unless the corporation's certificate of incorporation provides for it.

Cumulative voting is not permitted under Swiss corporate law. Pursuant to Swiss law, shareholders can vote for each proposed candidate, but they are not allowed to cumulate their votes for single candidates. An annual individual election of (i) all members of the board of directors, (ii) the chairman of the board of directors, (iii) the members of the compensation committee, (iv) the election of the independent proxy for a term of office of one year (i.e. until the following annual general meeting) as well as the vote on the compensation for the members of the board of directors and the executive management as well as for the members of the advisory board, if applicable, is mandatory for listed companies. Re-election is permitted.

Removal of directors

A Delaware corporation with a classified board may be removed only for cause with the approval of a majority of the outstanding shares entitled to vote, unless the certificate of incorporation provides otherwise.

A Swiss corporation may remove, with or without cause, any director at any time with a resolution passed by a simple majority of the shares represented at a general meeting of shareholders. The articles of association may require the approval by a qualified majority of the shares represented at a meeting for the removal of a director.

Transactions with interested shareholders

The Delaware General Corporation Law generally prohibits a Delaware corporation from engaging in certain business combinations with an "interested shareholder" for three years following the date that such person becomes an interested shareholder. An interested shareholder generally is a person or group who or which owns or owned 15.0% or more of the corporation's outstanding voting stock within the past three years.

No such rule applies to a Swiss corporation.

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Dissolution; Winding up

Unless the board of directors of a Delaware corporation approves the proposal to dissolve, dissolution must be approved by shareholders holding 100.0% of the total voting power of the corporation. Only if the dissolution is initiated by the board of directors may it be approved by a simple majority of the corporation's outstanding shares. Delaware law allows a Delaware corporation to include in its certificate of incorporation a supermajority voting requirement in connection with dissolutions initiated by the board.

A dissolution of a Swiss corporation requires the approval by two-thirds of the voting rights represented as well as the absolute majority of the nominal value of the share capital represented at a general meeting of shareholders passing a resolution on such dissolution. The articles of association may increase the voting thresholds required for such a resolution.

Variation of rights of shares

A Delaware corporation may vary the rights of a class of shares with the approval of a majority of the outstanding shares of such class, unless the certificate of incorporation provides otherwise.

The general shareholder meeting of a Swiss corporation may resolve that preference shares be issued or that existing shares be converted into preference shares with a resolution passed by a simple majority of the shares represented at the general meeting of shareholders. Where a company has issued preference shares, further preference shares conferring preferential rights over the existing preference shares may be issued only with the consent of both a special meeting of the adversely affected holders of the existing preference shares and of a general meeting of all shareholders, unless otherwise provided in the articles of association.

Shares with preferential voting rights are not regarded a special class for these purposes.

Amendment of governing documents

A Delaware corporation's governing documents may be amended with the approval of a majority of the outstanding shares entitled to vote, unless the certificate of incorporation provides otherwise.

The articles of association of a Swiss corporation may be amended with a resolution passed by a simple majority of the shares represented at such meeting, unless otherwise provided in the articles of association. There are a number of resolutions, such as an amendment of the stated purpose of the corporation, the introduction of authorized and conditional capital and the introduction of shares with preferential voting rights that require the approval by two-thirds of the voting rights represented and an absolute majority of the nominal value of the shares represented at a shareholders' meeting. The articles of association may increase the voting thresholds.

Inspection of books and records

Shareholders of a Delaware corporation, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose, and to obtain copies of list(s) of

Shareholders of a Swiss corporation may only inspect books and records if the general meeting of shareholders or the board of directors approved such inspection. The information may be refused where

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shareholders and other books and records of the corporation and its subsidiaries, if any, to the extent the books and records of such subsidiaries are available to the corporation.

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providing it would jeopardize the corporation's trade secrets or other interests warranting protection. A shareholder is only entitled to receive information to the extent required to exercise such shareholders' rights, subject to the interests of the corporation. The right to inspect the share register is limited to the right to inspect that shareholder's own entry in the share register.

Payment of dividends

The board of directors may approve a dividend without shareholder approval. Subject to any restrictions contained in its certificate of incorporation, the board may declare and pay dividends upon the shares of its share capital either:

- out of its surplus; or
- in case there is no such surplus, out of its net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year.

Stockholder approval is required to authorize share capital in excess of that provided in the charter. Directors may issue authorized shares without stockholder approval.

Dividend payments are subject to the approval of the general meeting of shareholders. The board of directors may propose to shareholders that a dividend shall be paid but cannot itself authorize the distribution.

Payments out of the Company's share capital (in other words, the aggregate nominal value of the Company's registered share capital) in the form of dividends are not allowed; however, payments out of share capital may be made by way of a capital reduction only. Dividends may be paid only from the profits brought forward from the previous business years or if the Company has distributable reserves, each as will be presented on the Company's audited annual stand-alone balance sheet. The dividend may be determined only after the allocations to reserves required by the law and the articles of association have been deducted.

Creation and issuance of new shares

All creation of shares require the board of directors to adopt a resolution or resolutions, pursuant to authority expressly vested in the board of directors by the provisions of the company's certificate of incorporation.

All creation of shares requires a shareholders' resolution. An authorized or contingent capital increase requires at least two-thirds of the voting rights represented at the general meeting of shareholders and an absolute majority of the nominal value of shares represented. Authorized shares can be, once created by shareholder resolution, issued by the board of directors (subject to fulfillment of the authorization). Conditional shares are created and issued through the exercise of options and conversion rights related to debt instruments issued by the board of directors or such rights issued to employees.

Transfer Agent And Registrar

The transfer agent and registrar for our common shares is American Stock Transfer & Trust Company, and its address is 6201 5th Street, Brooklyn, NY 11219.

Listing on the NASDAQ Global Market

Our common shares are listed on the NASDAQ Global Market under the symbol "CRSP."

DESCRIPTION OF DEBT SECURITIES

This section describes the general terms and provisions of our debt securities that we may issue from time to time. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any future debt securities we may offer under this prospectus, the applicable prospectus supplement will describe the specific terms of any debt securities offered through that prospectus supplement. The terms of any debt securities we offer under a prospectus supplement may differ from the terms we describe below. Unless the context requires otherwise, whenever we refer to the "indentures," we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue any senior debt securities under the senior indenture that we will enter into with the trustee named in the senior indenture. We will issue any subordinated debt securities under the subordinated indenture that we will enter into with the trustee named in the subordinated indenture. We have filed forms of these documents as exhibits to the registration statement, of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

The indentures will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We use the term "trustee" to refer to either the trustee under the senior indenture or the trustee under the subordinated indenture, as applicable.

The following summaries of material provisions of the senior debt securities, the subordinated debt securities and the indentures are subject to, and qualified in their entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplement and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete applicable indenture that contains the terms of the debt securities. Except as we may otherwise indicate, the terms of the senior indenture and the subordinated indenture are identical.

General

We will describe in the applicable prospectus supplement the terms of the series of debt securities being offered, including:

- the title:
- the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;
- · any limit on the amount that may be issued;
- · whether or not we will issue the series of debt securities in global form, and, if so, the terms and who the depository will be;
- · the maturity date;
- whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;
- the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;

- · the terms of the subordination of any series of subordinated debt;
- the place where payments will be payable;
- · restrictions on transfer, sale or other assignment, if any;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- the date, if any, after which, the conditions upon which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option, to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- whether the indenture will restrict our ability or the ability of our subsidiaries to:
 - · incur additional indebtedness:
 - · issue additional securities;
 - · create liens:
 - · pay dividends or make distributions in respect of our share capital or the share capital of our subsidiaries;
 - · redeem share capital;
 - place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;
 - make investments or other restricted payments;
 - · sell or otherwise dispose of assets;
 - enter into sale-leaseback transactions;
 - engage in transactions with shareholders or affiliates;
 - · issue or sell shares of our subsidiaries; or
 - effect a consolidation or merger;
- · whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;
- a discussion of certain material or special United States federal income tax considerations applicable to the debt securities;
- · information describing any book-entry features;
- provisions for a sinking fund purchase or other analogous fund, if any;
- the applicability of the provisions in the indenture on discharge;
- whether the debt securities are to be offered at a price such that they will be deemed to be offered at an "original issue discount" as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any additional events of default or
covenants provided with respect to the debt securities, and any terms that may be required by us or advisable under applicable laws or
regulations or advisable in connection with the marketing of the debt securities.

Conversion or Exchange Rights

We will set forth in the applicable prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for our common shares or other securities (including securities of a third-party). We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of our common shares or other securities (including securities of a third-party) that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the indentures will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the indentures or the debt securities, as appropriate. If the debt securities are convertible into or exchangeable for other securities of ours or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities that the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.

Events of Default Under the Indenture

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indentures with respect to any series of debt securities that we may issue:

- if we fail to pay interest when due and payable and our failure continues for 90 days and the time for payment has not been extended;
- if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable at maturity, upon redemption or repurchase or otherwise, and the time for payment has not been extended;
- if we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive notice from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- · if specified events of bankruptcy, insolvency or reorganization occur.

We will describe in each applicable prospectus supplement any additional events of default relating to the relevant series of debt securities.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the unpaid principal, premium, if any, and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indentures, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity or security satisfactory to it against any loss, liability or expense. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will have the right to institute a proceeding under the indentures or to appoint a receiver or trustee, or to seek other remedies if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request, and such holders have offered reasonable indemnity to the trustee or security satisfactory to it against any loss, liability or expense or to be incurred in compliance with instituting the proceeding as trustee; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities, or other defaults that may be specified in the applicable prospectus supplement.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indentures.

Modification of Indenture; Waiver

Subject to the terms of the indenture for any series of debt securities that we may issue, we and the trustee may change an indenture without the consent of any holders with respect to the following specific matters:

- · to fix any ambiguity, defect or inconsistency in the indenture;
- · to comply with the provisions described above under "Description of Our Debt Securities—Consolidation, Merger or Sale;"
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act;
- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided under "Description of Debt Securities—General," to establish the form of any

certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;

- to evidence and provide for the acceptance of appointment hereunder by a successor trustee;
- to provide for uncertificated debt securities and to make all appropriate changes for such purpose;
- to add to our covenants such new covenants, restrictions, conditions or provisions for the benefit of the holders, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred to us in the indenture; or
- to change anything that does not materially adversely affect the interests of any holder of debt securities of any series.

In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, subject to the terms of the indenture for any series of debt securities that we may issue or as otherwise provided in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- extending the stated maturity of the series of debt securities;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption or repurchase of any debt securities; or
- · reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Discharge

Each indenture provides that, subject to the terms of the indenture and any limitation otherwise provided in the prospectus supplement applicable to a particular series of debt securities, we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- · register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- · maintain paying agencies;
- hold monies for payment in trust;
- · recover excess money held by the trustee;
- · compensate and indemnify the trustee; and
- · appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple

thereof. The indentures provide that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depository named by us and identified in a prospectus supplement with respect to that series.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series. If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Trustee

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs.

Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indentures at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each

series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

Ranking of Debt Securities

The subordinated debt securities will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement. The subordinated indenture does not limit the amount of subordinated debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

The senior debt securities will rank equally in right of payment to all our other senior unsecured debt. The senior indenture does not limit the amount of senior debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement, which includes this prospectus.

General

We may issue warrants for the purchase of common shares and/or debt securities in one or more series. We may issue warrants independently or together with common shares and/or debt securities, and the warrants may be attached to or separate from these securities.

We will evidence each series of warrants by warrant certificates that we will issue under a separate warrant agreement. We will enter into the warrant agreement with a warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common shares, the number of common shares purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- · the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- · the periods during which, and places at which, the warrants are exercisable;
- the manner of exercise;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreement and warrants may be modified;
- federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

DESCRIPTION OF UNITS

We may issue units comprised of common shares, debt securities and warrants in any combination. We may issue units in such amounts and in as many distinct series as we wish. This section outlines certain provisions of the units that we may issue. If we issue units, they will be issued under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. The information described in this section may not be complete in all respects and is qualified entirely by reference to the unit agreement with respect to the units of any particular series. The specific terms of any series of units offered will be described in the applicable prospectus supplement. If so described in a particular supplement, the specific terms of any series of units may differ from the general description of terms presented below. We urge you to read any prospectus supplement related to any series of units we may offer, as well as the complete unit agreement and unit certificate that contain the terms of the units. If we issue units, forms of unit agreements and unit certificates relating to such units will be incorporated by reference as exhibits to the registration statement, which includes this prospectus.

Each unit that we may issue will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date. The applicable prospectus supplement may describe:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement;
- the price or prices at which such units will be issued;
- the applicable United States federal income tax considerations relating to the units;
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- any other terms of the units and of the securities comprising the units.

The provisions described in this section, as well as those described under "Description of Share Capital," "Description of Debt Securities" and "Description of Warrants" will apply to the securities included in each unit, to the extent relevant and as may be updated in any prospectus supplements.

Issuance in Series

We may issue units in such amounts and in as many distinct series as we wish. This section summarizes terms of the units that apply generally to all series. Most of the financial and other specific terms of a particular series of units will be described in the applicable prospectus supplement.

Unit Agreements

We will issue the units under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. We may add, replace or terminate unit agents from time to time. We will identify the unit agreement under which each series of units will be issued and the unit agent under that agreement in the applicable prospectus supplement.

The following provisions will generally apply to all unit agreements unless otherwise stated in the applicable prospectus supplement:

Modification Without Consent

We and the applicable unit agent may amend any unit or unit agreement without the consent of any holder:

- · to cure any ambiguity; any provisions of the governing unit agreement that differ from those described below;
- · to correct or supplement any defective or inconsistent provision; or
- to make any other change that we believe is necessary or desirable and will not adversely affect the interests of the affected holders in any
 material respect.

We do not need any approval to make changes that affect only units to be issued after the changes take effect. We may also make changes that do not adversely affect a particular unit in any material respect, even if they adversely affect other units in a material respect. In those cases, we do not need to obtain the approval of the holder of the unaffected unit; we need only obtain any required approvals from the holders of the affected units.

Modification with Consent

We may not amend any particular unit or a unit agreement with respect to any particular unit unless we obtain the consent of the holder of that unit, if the amendment would:

- impair any right of the holder to exercise or enforce any right under a security included in the unit if the terms of that security require the consent of the holder to any changes that would impair the exercise or enforcement of that right; or
- reduce the percentage of outstanding units or any series or class the consent of whose holders is required to amend that series or class, or the applicable unit agreement with respect to that series or class, as described below.

Any other change to a particular unit agreement and the units issued under that agreement would require the following approval:

- If the change affects only the units of a particular series issued under that agreement, the change must be approved by the holders of a majority
 of the outstanding units of that series; or
- If the change affects the units of more than one series issued under that agreement, it must be approved by the holders of a majority of all
 outstanding units of all series affected by the change, with the units of all the affected series voting together as one class for this purpose.

These provisions regarding changes with majority approval also apply to changes affecting any securities issued under a unit agreement, as the governing document.

In each case, the required approval must be given by written consent.

Unit Agreements Will Not Be Qualified Under Trust Indenture Act

No unit agreement will be qualified as an indenture, and no unit agent will be required to qualify as a trustee, under the Trust Indenture Act. Therefore, holders of units issued under unit agreements will not have the protections of the Trust Indenture Act with respect to their units.

Mergers and Similar Transactions Permitted; No Restrictive Covenants or Events of Default

The unit agreements will not restrict our ability to merge or consolidate with, or sell our assets to, another corporation or other entity or to engage in any other transactions. If at any time we merge or consolidate with, or

sell our assets substantially as an entirety to, another corporation or other entity, the successor entity will succeed to and assume our obligations under the unit agreements. We will then be relieved of any further obligation under these agreements.

The unit agreements will not include any restrictions on our ability to put liens on our assets, nor will they restrict our ability to sell our assets. The unit agreements also will not provide for any events of default or remedies upon the occurrence of any events of default.

Governing Law

The unit agreements and the units will be governed by New York law.

Form, Exchange and Transfer

We will issue each unit in global—i.e., book-entry—form only. Units in book-entry form will be represented by a global security registered in the name of a depositary, which will be the holder of all the units represented by the global security. Those who own beneficial interests in a unit will do so through participants in the depositary's system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depositary and its participants. We will describe book-entry securities, and other terms regarding the issuance and registration of the units in the applicable prospectus supplement.

Each unit and all securities comprising the unit will be issued in the same form.

If we issue any units in registered, non-global form, the following will apply to them.

The units will be issued in the denominations stated in the applicable prospectus supplement. Holders may exchange their units for units of smaller denominations or combined into fewer units of larger denominations, as long as the total amount is not changed.

- Holders may exchange or transfer their units at the office of the unit agent. Holders may also replace lost, stolen, destroyed or mutilated units at that office. We may appoint another entity to perform these functions or perform them ourselves.
- Holders will not be required to pay a service charge to transfer or exchange their units, but they may be required to pay for any tax or other governmental charge associated with the transfer or exchange. The transfer or exchange, and any replacement, will be made only if our transfer agent is satisfied with the holder's proof of legal ownership. The transfer agent may also require an indemnity before replacing any units.
- If we have the right to redeem, accelerate or settle any units before their maturity, and we exercise our right as to less than all those units or other securities, we may block the exchange or transfer of those units during the period beginning fifteen (15) days before the day we mail the notice of exercise and ending on the day of that mailing, in order to freeze the list of holders to prepare the mailing. We may also refuse to register transfers of or exchange any unit selected for early settlement, except that we will continue to permit transfers and exchanges of the unsettled portion of any unit being partially settled. We may also block the transfer or exchange of any unit in this manner if the unit includes securities that are or may be selected for early settlement.

Only the depositary will be entitled to transfer or exchange a unit in global form, since it will be the sole holder of the unit.

Payments and Notices

In making payments and giving notices with respect to our units, we will follow the procedures as described in the applicable prospectus supplement.

DESCRIPTION OF OUR SUBSCRIPTION RIGHTS

The following is a general description of the terms of the subscription rights we may issue from time to time. Particular terms of any subscription rights we offer will be described in the prospectus supplement or free writing prospectus relating to such subscription rights, and may differ from the terms described herein.

We may issue subscription rights to purchase our securities. These subscription rights may be issued independently or together with any other security offered hereby and may or may not be transferable by the shareholder receiving the subscription rights in such offering. In connection with any offering of subscription rights, we may enter into a standby arrangement with one or more underwriters or other purchasers pursuant to which the underwriters or other purchasers may be required to purchase any securities remaining unsubscribed for after such offering.

The applicable prospectus supplement will describe the specific terms of any offering of subscription rights for which this prospectus is being delivered, including the following:

- · whether common shares, preferred shares or warrants for those securities will be offered under the shareholder subscription rights;
- the price, if any, for the subscription rights;
- the exercise price payable for each security upon the exercise of the subscription rights;
- the number of subscription rights issued to each shareholder;
- the number and terms of the securities which may be purchased per each subscription right;
- the extent to which the subscription rights are transferable;
- any other terms of the subscription rights, including the terms, procedures and limitations relating to the exchange and exercise of the subscription rights;
- the date on which the right to exercise the subscription rights shall commence, and the date on which the subscription rights shall expire;
- the extent to which the subscription rights may include an over-subscription privilege with respect to unsubscribed securities;
- if appropriate, a discussion of material U.S. federal income tax considerations; and
- if applicable, the material terms of any standby underwriting or purchase arrangement entered into by us in connection with the offering of subscription rights.

The description in the applicable prospectus supplement of any subscription rights we offer will not necessarily be complete and will be qualified in its entirety by reference to the applicable subscription rights certificate or subscription rights agreement, which will be filed with the SEC if we offer subscription rights.

Standby Arrangements

If fewer than all of the subscription rights issued in any rights offering are exercised, we may offer any unsubscribed securities directly to persons other than shareholders, to or through agents, underwriters or dealers or through a combination of such methods, including pursuant to standby arrangements, as described in the applicable prospectus supplement.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

- · at a fixed price or prices, which may be changed;
- · at market prices prevailing at the time of sale;
- · at prices related to such prevailing market prices; or
- · at negotiated prices.

We may also sell equity securities covered by this registration statement in an "at—the-market offering" as defined in Rule 415 under the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price on or through the facilities of the NASDAQ Global Market or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale.

Such at-the-market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- · any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any public offering price;
- · any discounts or concessions allowed or re-allowed or paid to dealers;
- · the terms of any subscription rights; and
- · any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to this offering, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we offer, other than common shares, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on any exchange or over-the-counter market or otherwise.

Any underwriters who are qualified market makers on the NASDAQ Global Market may engage in passive market making transactions in the securities on the NASDAQ Global Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

Direct sales to investors or our shareholders may be accomplished through subscription offerings or through subscription rights distributed to shareholders. In connection with subscription offerings or the distribution of subscription rights to shareholders, if all of the underlying securities are not subscribed for, we may sell any unsubscribed securities to third parties directly or through underwriters or agents. In addition, whether or not all of the underlying securities are subscribed for, we may concurrently offer additional securities to third parties directly or through underwriters or agents. If securities are to be sold through subscription rights, the subscription rights will be distributed as a dividend to the shareholders for which they will pay no separate consideration.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, certain legal matters in connection with the offering and the validity of the securities offered by this prospectus, and any supplement thereto, will be passed upon by Goodwin Procter LLP, Boston, Massachusetts.

EXPERTS

The financial statements of CRISPR Therapeutics AG appearing in CRISPR Therapeutics AG's Annual Report (Form 10-K) for the year ended December 31, 2016, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon included therein, and incorporated herein by reference. Such financial statements are, and audited financial statements to be included in subsequently filed documents will be, incorporated herein in reliance upon the report of Ernst & Young LLP pertaining to such financial statements (to the extent covered by consents filed with the Securities and Exchange Commission) given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You should rely only on the information contained in this prospectus or incorporated by reference. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy the registration statement, as well as any other document filed by us with the SEC, at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. You can also request copies of these documents by writing to the SEC and paying a fee for the copying cost. You may obtain information on the operation of the Public Reference Room by calling the SEC at (800) SEC-0330. The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC, including CRISPR Therapeutics AG. The address of the SEC website is www.sec.gov.

We maintain a website at www.crisprtx.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-37923. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

• our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 10, 2017;

- our Quarterly Report on Form 10-Q for the three months ended March 31, 2017 filed with the SEC on May 11, 2017;
- our Quarterly Report on Form 10-Q for the three months ended June 30, 2017 filed with the SEC on August 10, 2017;
- our Quarterly Report on Form 10-Q for the three months ended September 30, 2017 filed with the SEC on November 8, 2017;
- our Current Reports on Form 8-K filed with the SEC on November 7, 2017, October 2, 2017, July 27, 2017, July 25, 2017, June 19, 2017, June 8, 2017, June 2, 2017, May 4, 2017, April 27, 2017, April 13, 2017, March 31, 2017, March 20, 2017 and February 15, 2017, to the extent the information in such reports is filed and not furnished;
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2016 from our definitive proxy statement on Schedule 14A (other than information furnished rather than filed), which was filed with the SEC on April 18, 2017; and
- the description of our common shares contained in our Registration Statement on Form 8-A12B, filed with the SEC on October 18, 2016, including any amendments or reports filed for the purposes of updating this description.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to CRISPR Therapeutics, Inc., 610 Main Street, Cambridge, Massachusetts 02139, Attn: Secretary, telephone: (617) 315-4626.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.



CRISPR Therapeutics AG

Up to \$125,000,000

Common Shares

PROSPECTUS SUPPLEMENT

Jefferies

August 31, 2018