

Supplement dated August 25, 2023
To Prospectus Supplement dated May 25, 2022
(To Prospectus dated May 25, 2022)



Up to \$150,000,000

Common Stock

This supplement, or Supplement, updates, amends and supplements the prospectus supplement, dated May 25, 2022, or Prospectus Supplement, relating to the offer and sale of shares of common stock, par value \$0.001 per share, of ALX Oncology Holdings Inc., or the Company, from time to time through the sales agents named therein or directly to the sales agents, acting as our agent or principal.

Sales of our common stock, if any, pursuant to this Supplement and the Prospectus Supplement will be made in sales deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act of 1933, as amended. This Supplement should be read in conjunction with the Prospectus Supplement. Capitalized terms used and not defined herein shall have the meanings ascribed to such terms in the Prospectus Supplement.

This Supplement is being filed to reflect the amendment of the sales agreement, or Sales Agreement, by and among the Company, Cantor Fitzgerald & Co., or Cantor Fitzgerald, and Credit Suisse Securities (USA) LLC, or Credit Suisse, dated December 17, 2021, to include UBS Securities LLC, or UBS, as an additional sales agent and to remove Credit Suisse as a sales agent. Accordingly, each reference to the term “sales agent” or “sales agents” in the Prospectus Supplement is hereby amended to include UBS and to exclude Credit Suisse and each reference to Credit Suisse is hereby amended to be a reference to UBS.

Investing in our common stock involves risk. Please read the information contained in and incorporated by reference under the heading “Risk Factors” beginning on page S-7 of the Prospectus Supplement and in the documents incorporated by reference into the Prospectus Supplement and the Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of the Prospectus Supplement or the Prospectus. Any representation to the contrary is a criminal offense.

Cantor

UBS Investment Bank