PROSPECTUS SUPPLEMENT NO. 6 (To Prospectus dated June 21, 2024)

Microbot Medical Inc.

1,769,966 Shares of Common Stock

This prospectus supplement (this "Prospectus Supplement") is being filed to update and supplement our prospectus dated June 21, 2024 as supplemented (the "Prospectus"), relating to the resale of up to 1,769,966 shares of our common stock, \$0.01 par value per share, representing shares issuable upon the exercise of outstanding preferred investment options held by the selling stockholders named in the Prospectus, including their transferees, pledgees, donees or successors.

Specifically, this Prospectus Supplement is being filed to update and supplement the information included in the Prospectus with certain information reported by us with the Securities and Exchange Commission. Accordingly, we have included such information in this Prospectus Supplement below. Any statement contained in the Prospectus shall be deemed to be modified or superseded to the extent that information in this Prospectus Supplement modifies or supersedes such statement.

Capitalized terms used but not defined herein have the meanings ascribed to them in the Prospectus.

This Prospectus Supplement is not complete without, and may not be utilized except in connection with, the Prospectus, including any supplements and amendments thereto.

We may further amend or supplement the Prospectus and this Prospectus Supplement from time to time by filing amendments or supplements as required. You should read the entire Prospectus, this Prospectus Supplement and any amendments or supplements carefully before you make your investment decision.

Our common stock is listed on The Nasdaq Capital Market under the symbol "MBOT". On September 30, 2024, the closing price of our common stock was \$0.894.

Investing in our common stock involves significant risks. You should read the section entitled "Risk Factors" beginning on page 11 of the Prospectus for a discussion of certain risk factors that you should consider before investing in our common stock.

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

The date of this Prospectus Supplement is September 30, 2024

The Company is currently experiencing an acceleration of patient enrollment for ACCESS-PVI human clinical trial, a prospective, multi-center, single-arm trial to evaluate the performance and safety of LIBERTY® in human subjects undergoing Peripheral Vascular Interventions. As a result of the increased rate of patient enrollment, 80% of the patients have completed the follow up period, and the Company now anticipates completing the trial ahead of its prior expectation. The Company remains on track to file its 510(k) submission with the U.S. Food and Drug Administration (FDA) by of the end of 2024. The Company also announced that is has successfully completed all biocompatibility tests, as required by its Investigational Device Exemption (IDE) application and received full approval for the IDE study from the FDA. In parallel with the clinical trial, the Company is performing additional customary bench testing, and these final results will be included in the Company's 510(k) submission.