

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 8-K**

**CURRENT REPORT  
Pursuant to Section 13 or 15(d) of the  
Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): **June 29, 2016**

**Mirna Therapeutics, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction  
of incorporation)

**001-37566**  
(Commission  
File Number)

**26-1824804**  
(IRS Employer  
Identification Number)

**2150 Woodward Street, Suite 100**  
**Austin, TX 78744**  
(Address of principal executive offices, including Zip Code)

Registrant's telephone number, including area code: **(512) 901-0900**

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

**Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officer.**

On June 29, 2016, Dr. Miguel Barbosa, the Chief Scientific Officer of Mirna Therapeutics, Inc. ("Mirna" or the "Company"), and the Company mutually agreed that Dr. Barbosa would resign as Chief Scientific Officer of the Company, effective as of June 29, 2016 (the "Separation Date").

In connection with Dr. Barbosa's departure from the Company and in consideration of his release of claims against the Company, the Company entered into a Separation and Release Agreement (the "Agreement") with Dr. Barbosa. Under the Agreement, Dr. Barbosa will cease serving as an employee of the Company effective as of the Separation Date. Dr. Barbosa will be entitled to (i) a severance payment equal to \$270,375, which represents nine months of Dr. Barbosa's base salary in effect as of immediately prior to the Separation Date, and (ii) payment of his COBRA premiums for up to nine months following the Separation Date.

The foregoing description of the material terms of the Agreement is not complete and is qualified in its entirety by reference to the full text of the Agreement, which the Company intends to file as an exhibit to its Quarterly Report on Form 10-Q for the quarter during which the Agreement was entered into.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

**MIRNA THERAPEUTICS, INC.**

Date: July 6, 2016

By: /s/ Alan Fuhrman  
Alan Fuhrman  
Chief Financial Officer