Prospectus Supplement No. 1 to Reoffer Prospectus

of

Anixa Biosciences, Inc.

Up to 7,030,112 Shares of Common Stock under the 2018 Share Incentive Plan, Employee Stock Purchase Plan, 2010 Share Incentive Plan, as amended, certain Non-Plan Time Based Stock Option Agreements and certain Non-Plan Performance Based Stock Option Agreements

This Prospectus Supplement, dated January 9, 2020 (this "Supplement"), supplements the reoffer prospectus filed as part of the Registration Statement on Form S-8 filed by Anixa Biosciences, Inc. (the "Company", "us", "our" or "we") with the Securities and Exchange Commission (the "SEC") on October 1, 2018 (the "Prospectus"), relating to the resale of common stock, par value \$0.01 per share (the "Common Stock"), of the Company which may be offered and sold from time to time by certain of our executive officers and directors (the "Selling Stockholders") who may be deemed "affiliates" of the Company as defined in Rule 405 under the Securities Act of 1933, as amended (the "Securities Act"), who have acquired or will acquire such shares in connection with the exercise of stock options granted, and with stock or other awards made, and with the purchase of stock under, the Company's 2018 Share Incentive Plan (the "2018 Plan"), the Company's Employee Stock Purchase Plan (the "ESPP"), the Company's 2010 Share Incentive Plan, as amended (the "2010 Plan"), as well as certain Non-Plan Time Based Stock Option Agreements between the Company and certain Selling Stockholders (each a "Time Based Stock Option Agreement") and certain Non-Plan Performance Based Stock Option Agreements between the Company and certain Selling Stockholders (each a "Performance Based Stock Option Agreement") and together with each of the Time Based Option Agreements, the "Option Agreements"). This Supplement covers 7,030,112 shares of Common Stock (the "Shares") including (i) shares of Common Stock (inclusive of shares purchased pursuant to the ESPP and restricted shares granted under the 2018 Plan) and (ii) shares issuable upon exercise of options granted to such Selling Stockholders under the 2018 Plan, the 2010 Plan and the Option Agreements that are owned by the Selling Stockholders.

You should read this Supplement in conjunction with the Prospectus. This Supplement is qualified by reference to the Prospectus, except to the extent the information in this Supplement supersedes the information contained in the Prospectus.

Our Common Stock is quoted on the Nasdaq Capital Market under the symbol "ANIX". On January 8, 2020, the closing sales price of our Common Stock on the Nasdaq Capital Market was \$3.00 per share.

The Shares may be offered from time to time by any or all of the Selling Stockholders through ordinary brokerage transactions, in negotiated transactions or in other transactions, at such prices as such Selling Stockholder may determine, which may relate to market prices prevailing at the time of sale or be a negotiated price. See "Plan of Distribution" in the Prospectus. Sales may be made through brokers or to dealers, who are expected to receive customary commissions or discounts. We will not control or determine the price at which a Selling Stockholder decides to sell its shares. Brokers or dealers effecting transactions in these shares should confirm that the shares are registered under applicable state law or that an exemption from registration is available.

The Selling Stockholders and participating brokers and dealers may be deemed to be "underwriters" within the meaning of the Securities Act, in which event any profit on the sale of shares of those Selling Stockholders and any commissions or discounts received by those brokers or dealers may be deemed to be underwriting compensation under the Securities Act.

You should carefully read and consider the risk factors under Item 1A beginning on page 17 of our Annual Report on Form 10-K for the year ended October 31, 2019 for risks relating to investment in the Company's securities.

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

The information set forth under the caption "Selling Stockholders" in the Prospectus is amended and restated in its entirety as set forth below and is provided for the primary purpose of updating the table of selling stockholders contained in the Prospectus.

The date of this Supplement is January 9, 2020

SELLING STOCKHOLDERS

The following table sets forth (a) the name and position or positions with the Company of each Selling Stockholder; (b) the aggregate of (i) the number of shares of Common Stock held by each Selling Stockholder as of the date of this Supplement (including shares purchased pursuant to the ESPP) and (ii) the number of shares issuable upon exercise of options granted to each Selling Stockholder under the 2018 Plan, the 2010 Plan and the Option Agreements that are being registered pursuant to the Prospectus, as supplemented by this Supplement, for resale by each Selling Stockholder as of the date of this Supplement; (c) the number of shares of Common Stock that each Selling Stockholder may offer for sale from time to time pursuant to the Prospectus, as supplemented by this Supplement, whether or not such Selling Stockholder has a present intention to do so; and (d) the number of shares of Common Stock to be beneficially owned by each Selling Stockholder following the sale of all shares that may be so offered pursuant to the Prospectus, as supplemented by this Supplement, assuming no other change in ownership of Common Stock by such Selling Stockholder after the date of this Supplement. Unless otherwise indicated, beneficial ownership is direct and the person indicated has sole voting and investment power.

To our knowledge, none of our officers and directors have a present intention to offer shares of Common stock for sale, although they retain the right to do so.

Inclusion of an individual's name in the table below does not constitute an admission that such individual is an "affiliate" of the Company.

Selling Stockholder	Principal Position with the Company (1)	Shares Owned Prior to Resale (2)(3)(4)(5)(6)(7)		Number of Shares Offered for Resale	Shares Beneficially Owned After Resale (7)	
		Number	Percent		Number	Percent
	President, Chief Executive					
	Officer and Chairman					
Dr. Amit Kumar	of the Board	5,174,000	21.27%	5,000,000	174,000	*
	Chief Financial Officer and					
Michael J. Catelani	Chief Operating Officer	853,962	3.94%	851,712	2,250	*
Lewis H. Titterton, Jr.	Director	1,561,544	7.27%	707,400	854,144	3.98%
Dr. John Monahan	Director	208,900	1.00%	208,000	900	*
Dr. Arnold Baskies	Director	139,000	*	128,000	11,000	*
David Cavalier	Director	92,000	*	90,000	2,000	*
Emily Gottschalk	Director	45,000	*	45,000	-	*

Less than 1%.

- (1) All positions described are with the Company, unless otherwise indicated.
- (2) The number of shares owned prior to resale by each Selling Stockholder includes (i) shares of Common Stock (inclusive of shares purchased pursuant to the ESPIand restricted shares granted under the 2018 Plan) and (ii) shares issuable upon exercise of options granted to such Selling Stockholders under the 2018 Plan, the 2010 Plan and the Option Agreements that are being registered pursuant to the Prospectus, as supplemented by this Supplement, for resale. Some of these shares may have been sold prior to the date of this Supplement.
- (3) Includes 1,500,000 restricted shares of Common Stock awarded to Dr. Amit Kumar pursuant to the 2018 Plan for which Dr. Kumar has voting rights but that vest only if during any 20 trading day period on or before May 31, 2021 in which Dr. Kumar is employed by the Company, the average closing stock price of the issuer's common stock is at least \$11.00.

- (4) Includes 2,620,000 shares, 600,000 shares, 45,000 shares, 45,000 shares, 45,000 shares, 45,000 shares, 45,000 shares and 3,445,000 shares which Dr. Amit Kumar, Michael J. Catelani, Lewis H. Titterton, Jr., Dr. John Monahan, Dr. Arnold Baskies, David Cavalier, Emily Gottschalk and all directors and executive officers as a group, respectively, have the right to acquire upon exercise of options granted pursuant to the 2018 Plan.
- (5) Includes 240,000 shares, 250,000 shares, 524,000 shares, 113,000 shares, 83,000 shares, 45,000 shares and 1,255,000 shares which Dr. Amit Kumar, Michael J. Catelani, Lewis H. Titterton, Jr., Dr. John Monahan, Dr. Arnold Baskies, David Cavalier and all directors and executive officers as a group, respectively, have the right to acquire upon exercise of options granted pursuant to the 2010 Plan.
- (6) Includes 640,000 shares, 86,000 shares, and 726,000 shares which Dr. Amit Kumar, Lewis H. Titterton, Jr. and all directors and executive officers as a group, respectively, have the right to acquire pursuant to the Option Agreements with the Company.
- (7) Percentage is computed with reference to 20,821,204 shares of our Common Stock outstanding as of January 8, 2020 and assumes for each Selling Stockholder the sale of all shares offered by that particular Selling Stockholder under the Prospectus and this Supplement.