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UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D/A

Under the Securities Exchange Act of 1934 (Amendment No. 2)*

SpectRx, Inc.

(Name of Issuer)

Common Stock, par value \$.001 per share (Title of Class of Securities)

847635109

(CUSIP Number)

Jose M. de Lasa, 100 Abbott Park Road Abbott Park, Illinois 60064-6049; Phone (847) 937-8905

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

September 4, 2001

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of sections 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g) check the following box [].

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 847635109

1)	NAME OF REPORTING PERSON I.R.S. IDENTIFICATION NO. OF ABOVE PERSON					
	Abbott Laboratories IRS Identification No.	36-0698440				
2)	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP(a) // (b) //					
3)	SEC USE ONLY					
4)	SOURCE OF FUNDS					
	OO (see Item 3 below)					
5)	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) //					
6)	CITIZENSHIP OR PLACE OF ORGANIZATION					
	Illinois					
BE	NUMBER OF SHARES EENEFICIALLY OWNED BY	(7)	SOLE VOTING POWER 1,189,256			
		(8)	SHARED VOTING POWER 0			

	EACH REPORTING PERSON WITH	(9)	SOLE DISPOSITIVE POWER 1,189,256			
		(10)	SHARED DISPOSITIVE POWER 0			
11)	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON					
	1,189,256					
12)	CHECK IF THE AG	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) //				
13)	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)					
	11.3% (see Item 5 below)					
14)	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)					
	СО					

The following information amends and supplements the Schedule 13D filed on July 16, 1997 (the "Schedule 13D") and the First Amendment to the Schedule 13D filed on July 17, 2001 (the "First Amendment"). Capitalized terms used but not otherwise defined herein shall have the same meanings assigned to those terms in the First Amendment.

Item 3. Source and Amount of Funds or Other Consideration

The purchase price of the approximately 132,450 shares of Common Stock of the Issuer (the "Shares") intended to be purchased is \$1,000,000 (the "Purchase Price"). As described in Item 6 below,

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the actual number of Common Stock Abbott receives may vary from this number. The anticipated source of funds for the Shares is Abbott's general assets.

Item 4. Purpose of the Acquisition

Abbott will acquire the Shares as an investment and in connection with its research, development and license agreement with the Issuer. As more fully described in Item 6 below, Abbott and the Issuer have entered into an agreement under which Abbott will purchase the Shares.

Abbott intends to monitor its interests in the Issuer on an ongoing basis and to take such measures as it deems appropriate from time to time in furtherance of such interests. Abbott may from time to time acquire additional shares of Common Stock, dispose of some or all of the shares of Common Stock then beneficially owned by it, discuss the Issuer's business, operations, or other affairs with the Issuer's management, board of directors, shareholders or others or take such other actions as Abbott may deem appropriate. Notwithstanding the foregoing, except as described in this Item 4 and in Item 6, Abbott has no present plan or proposal which relate to or would result in any of the matters referred to in Items (a) through (j) of Item 4 of Schedule 13D of the Securities and Exchange Commission. Abbott does, however, reserve the right to adopt such plans or proposals subject to compliance with applicable regulatory requirements.

Item 5. Interest in Securities of the Issuer

(a) Abbott may be deemed to be the beneficial owner of the shares of Common Stock to which the Initial Shares and the Additional Shares (as described in the First Amendment) may be converted. Because the conversion price is subject to change, as more fully described in Item 6 of the First Amendment, the actual amount of Common Stock obtained upon conversion may differ from this number. Subject to the foregoing, the shares received upon conversion together with the approximate number of Shares to be acquired under the Amendment (as described in Item 6 below) and the 500,143 shares of Common Stock described in the Schedule 13D, would represent approximately 11.3% of the total outstanding shares of Common Stock. The calculation of the foregoing percentage is based on the number of shares of Common Stock shown as being outstanding on the Form 10-Q Quarterly Report filed by the Issuer with the Securities and Exchange Commission for the quarter ended June 30, 2001.

(b) Abbott will have sole power to vote or to direct the vote and the sole power to dispose or to direct the disposition of the shares.

(c) Except as described herein, there have been no transactions by Abbott or the persons whose names are listed on Exhibit 1 in securities of the Issuer during the past sixty days.

(d) No one other than Abbott is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from a sale of, the shares.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

The following summary of the principal terms of the Amendment does not purport to be complete and reference is made to the full text of such agreement which is filed as an exhibit to this statement and is incorporated herein by this reference.

Abbott and the Issuer entered into an amendment, dated September 4, 2001 (the "Amendment"), to their Research & Development and License Agreement, dated October 10, 1996 (the "Research Agreement"). Abbott is required to pay the first \$1,000,000 of \$2,000,000 milestone payments due

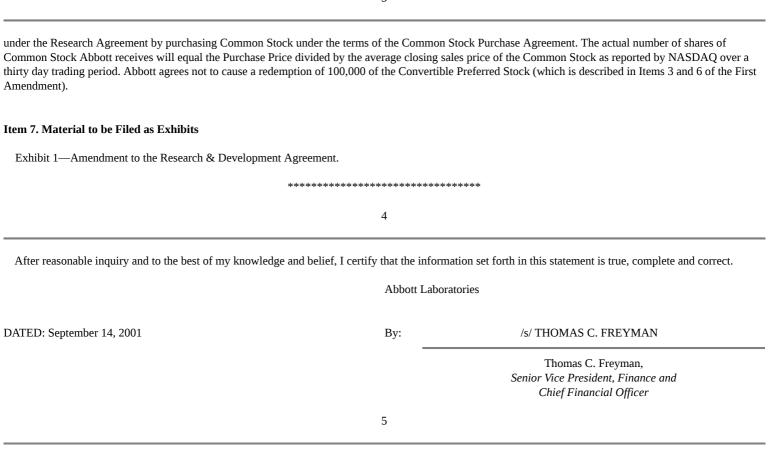


EXHIBIT INDEX

PORTIONS OF EXHIBIT 1 HAVE BEEN OMITTED (DESIGNATED BY AN ASTERISK (*)) AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT DATED SEPTEMBER 14, 2001.

Exhibit Number	Description
1	Amendment to the Research & Development Agreement.
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Item 3. Source and Amount of Funds or Other Consideration

Item 4. Purpose of the Acquisition

Item 5. Interest in Securities of the Issuer

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

Item 7. Material to be Filed as Exhibits

EXHIBIT INDEX

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PORTIONS OF THIS DOCUMENT HAVE BEEN OMITTED (DESIGNATED BY AN ASTERISK (*)) AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT DATED SEPTEMBER 14, 2001.

September 4, 2001

VIA FACSIMILE

Mr. Mark Samuels Chairman & CEO SpectRx, Inc. 6025 A Unity Drive Norcross, GA 30071

Re:

Amendment to the Research & Development License Agreement (October 10, 1996) as previously amended by the parties ("RDL Agreement")

Dear Mark:

In accordance with our recent discussions, Abbott hereby delivers the Development Program Notification to SpectRx pursuant to the RDL Agreement, and Abbott and SpectRx (the "Parties") hereby amend the terms of the RDL Agreement as follows:

1.

Abbott and SpectRx hereby acknowledge the termination of Abbott's rights to and all obligations for the Non-Continuous Product (as defined in the Third Amendment to the RDL Agreement, dated November 30, 1999, ("Third Amendment")) and SpectRx affirms Abbott's right of first negotiation pursuant to the terms of section 4.5 of the Third Amendment for distribution of any Non-Continuous Product developed by SpectRx.

2.

The following additional amendments are made to the RDL Agreement:

a) Abbott shall be required to pay the first \$1 million of the \$2 million Milestone due under section 5.1(A)(3) of the Third Amendment by purchasing SpectRx common stock under Section 1 of the Common Stock Purchase Agreement (Appendix 5.1 of the Third Amendment, as further amended by the December 27, 2000 letter agreement between SpectRx and Abbott).

b) The second \$1 million of the \$2 million Milestone due under Section 5.1(A)(3) of the Third Amendment shall not be due unless and until ten (10) business days following delivery of written notice by SpectRx to Abbott of a final decision or settlement of all viable claims alleged by Altea Technologies, Inc. ("Altea") and Non-Invasive-Monitoring Company, Inc. ("NIMCO") against SpectRx in the Demand for Arbitration in the arbitration proceeding ("Arbitration") currently underway with Altea and NIMCO, and provided that SpectRx's rights to sublicense the Technology (as defined in the RDL Agreement, as amended) are not terminated ***.

c) In the event that there is a final decision or settlement of the Arbitration pursuant to which SpectRx's rights to sublicense the Technology are terminated ***, then SpectRx shall, within ten (10) business days after such decision or settlement, send Abbott a written notice of such decision or settlement and pay to Abbott a sum equal to the difference between \$1 million and the fair market value of the shares of SpectRx common stock purchased by Abbott under Section 2(a) above, such fair market value to be calculated based on the average closing sale price of SpectRx common stock as reported on the Nasdaq National Market over the forty five (45) trading days subsequent to the Public Disclosure of the decision or settlement. For this purpose, Public Disclosure shall mean an appropriate filing with the SEC or/and distribution of a press release through a widely disseminated news or wire service that is reasonably designed to provide broad public access.

d) Each time period specified in Section 3.7(A) of the Third Amendment shall be extended until the earlier of (i) March 31, 2002, or (ii) the date on which the product specifications (as defined in Appendix 2.7 of the Third Amendment) have been successfully achieved.

e) Abbott will assume full funding responsibility for the portion of the Development Program regarding the Continuous Product as of September 1, 2001. As set forth in the Third Amendment, Abbott will not be responsible for any funding regarding the Non-Continuous Product from the date hereof.

3.

In consideration of the various agreements made in this amendment, Abbott unconditionally and irrevocably waives, for itself and its successors and assigns, its right to cause a redemption, at its election pursuant to Section (d)(1) of the *Designations, Preferences and Rights of Redeemable Convertible Preferred Stock of SpectRx, Inc.* (the "Designations"), of, and as to, 100,000 shares of Redeemable Convertible Preferred Stock held by Abbott), and agrees not to make such election in respect of such 100,000 shares. Abbott agrees, should it at any time transfer its shares of Redeemable Convertible Preferred Stock, to inform the transferee of the foregoing waiver, and to agree that SpectRx may place a legend on the share certificate(s) for 100,000 of its 525,000 shares of Redeemable Convertible Preferred Stock referencing the applicability of the waiver provided for hereinabove and referring to this amendment. The Parties agree that the exclusion of such 100,000 shares from Abbott's redemption election by virtue of Abbott's waiver in respect thereof will reduce the number of shares redeemable at Abbott's election under Section (d)(1) of the Designations on December 31, 2002 from one-half of the shares (i.e., 262,500 shares) to 162,500 shares of Redeemable Convertible Preferred Stock; the shares that would be required to be redeemed in 2004 under such election would remain unchanged, being one-half of the total (i.e., 262,500 shares). In partial consideration for the foregoing waiver, SpectRx unconditionally and irrevocably waives, as to the 100,000 shares of Redeemable Convertible Preferred Stock referenced above, its right to cause, at its election pursuant to Section (d)(2) of the Designations, a redemption of such shares. Nothing contained in the foregoing waivers and agreements shall effect or otherwise amend or limit the redemption election rights of Abbott, or its successors or assigns, or SpectRx, with respect to all of the shares of Redeemable Convertible Preferred Stock now held by Abbott other than the 100,000 shares that are the subject of this paragraph 3. Abbott further agrees to execute and deliver a shareholder consent which SpectRx may later require to obtain the consent of Abbott as the holder of all of the issued shares of the Company's Redeemable Preferred Stock to effect an amendment to the Designations under Delaware law, in form reasonably acceptable to Abbott, to revise the redemption provisions of such Designations to give effect (as such an amendment to the Designations) to the waivers and agreement set forth above, although the waivers and agreements provided for above are effective as of the date hereof and are not in any way conditioned upon any such amendment of the Designations.

4.

Except as set forth above, all provisions of the RDL Agreement shall remain in full force and effect.

Sincerely,

James J. Koziarz, Ph.D. Corporate Vice President Diagnostic Products R & D Abbott Laboratories

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ACCEPTED THIS 4th DAY OF SEPTEMBER, 2001

SpectRx, Inc.

By:

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<u>Exhibit 1</u>