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): March 5, 2004

ARROWHEAD RESEARCH CORPORATION (Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)0-21898
(Commission
File Number)46-0408024
(I.R.S. Employer
Identification No.)

150 S. Los Robles, Ste. 480, Pasadena, CA91101(Address of principal executive offices)(Zip Code)

Registrant's telephone number, including area code: (626) 792-5549

Not Applicable

(Former name or former address, if changed since last report)

ITEM 5. OTHER EVENTS AND REGULATION FD DISCLOSURE.

On March 5, 2004, Arrowhead Research Corporation, a Delaware corporation ("Arrowhead Research"), entered into an agreement with Dr. Harry A. Atwater and the California Institute of Technology ("Caltech") to form a new corporation to commercialize an ultrathin crystal film (nanofilm) technology that has been developed by Dr. Atwater and his research group at Caltech. Pursuant to this agreement, Caltech would grant the new company a fully-paid, worldwide, exclusive license to use the technology for commercial purposes. As payment in full for the technology license, Caltech will be granted a warrant to purchase shares of the new company's common stock.

The technology is expected to provide advancements in semiconductor technology, in which device active region optical and electrical properties can be optimally engineered independently of the underlying substrate's thermal, dielectric and mechanical properties. The technology enables fabrication of high-quality single crystal semiconductor (e.g., InP, Ge, GaAs) and oxide (e.g., BaTiO3 , LiNbO3 , PMNPT) nanometer thickness films as surface layers transferred onto low-cost substrates (Si, Sapphire, glass) and would enable superior device/system performance at lower cost in applications such as photonics/ULSI electronics integration, light-emitting diode and laser arrays, HBTs for wireless communications and high efficiency solar cells.

Arrowhead Research has agreed to provide \$2,000,000 of initial funding to the new company, to purchase shares of preferred stock, and to contribute up to \$3,000,000 of additional capital as certain milestones in the development of its business are met. For its investment, Arrowhead Research will own 80% of the voting securities of the new company, with the balance to be owned by Dr. Atwater, two scientists in his group, and a president to be subsequently identified. Options will be granted to Dr. Atwater, the two scientists, and the newly to be selected president of the company, which will vest over a 4-year period. In the event that all of the outstanding options and warrants fully vested and were exercised, along with additional options that are available for future grant under a stock option plan, the ownership of Arrowhead Research in the new company would be reduced, but not below 50% of the then outstanding voting securities.

As owner of all outstanding preferred stock, Arrowhead Research will have the right at all times to elect a majority of the members of the new company's Board of Directors, with the remaining directors to be elected by Dr. Atwater and the other holders of the new company's common stock. The initial Board of Directors of the new company will be comprised of 3 representatives of Arrowhead Research and two designees of Dr. Atwater and his group. Arrowhead Research has agreed to sponsor additional research at Caltech, under the direction of Dr. Atwater, to exploit a new ferroelectric film synthesis technique recently developed by the Atwater group to make nanoscale piezoelectric devices suitable for integration into microelectromechanical systems (MEMS) on silicon substrates.

Execution of the agreement was publicly announced on March 9, 2004, by means of a Press Release, a copy of which is filed as an amendment hereto.

ITEM 7. FINANCIAL STATEMENTS AND EXHIBITS.

(c) Exhibits.

.

A - Press Release dated March 9, 2004

SIGNATURES

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

Date: March 9, 2004

ARROWHEAD RESEARCH CORPORATION

By: /s/ R. Bruce Stewart R. Bruce Stewart, President Contact: Telephone: Email: R. Bruce Stewart 626.792.5549 bruce@arrowres.com

ARROWHEAD RESEARCH CORPORATION TO FORM NEW NANOTECH SUBSIDIARY

Pasadena, California--(PR Newswire)--March 9, 2004. Arrowhead Research Corporation (OTCBB: ARWR) announced today that it has entered into an agreement to form a new majority-owned subsidiary to commercialize an ultrathin crystal film (nanofilm) technology that has been developed by Dr. Harry A. Atwater and his research group at the California Institute of Technology. The agreement between Arrowhead Research Corporation, Dr. Atwater, and Caltech provides for the grant of a fully-paid exclusive license to the new company to utilize the technology for commercial application.

The technology is expected to provide advancements in semiconductor technology, in which device active region optical and electrical properties can be optimally engineered independently of the underlying substrate's thermal, dielectric and mechanical properties. The technology enables fabrication of high-quality single crystal semiconductor (e.g., InP, Ge, GaAs) and oxide (e.g., BaTiO3, LiNbO3, PMNPT) nanometer thickness films as surface layers transferred onto low-cost substrates (Si, Sapphire, glass) and would enable superior device/system performance at lower cost in applications such as photonics/ULSI electronics integration, light-emitting diode and laser arrays, HBTs for wireless communications and high efficiency solar cells.

Arrowhead has also agreed to sponsor research at Caltech under the direction of Dr. Atwater to exploit a new ferroelectric film synthesis technique recently developed by the Atwater group to make nanoscale piezoelectric devices suitable for integration into microelectromechanical systems (MEMS) on silicon substrates.

ABOUT ARROWHEAD RESEARCH CORPORATION

Arrowhead Research Corporation funds research at universities in emerging scientific areas, initially focusing on nanotechnology, in return for the exclusive rights to commercially exploit any technologies and associated intellectual property and patents developed as a result of this research. To date, the company has entered into three agreements with the California Institute of Technology and three of its faculty who are conducting nano-technology research and is actively pursuing other potential partners at Caltech and at other leading research institutions and universities.

SAFE HARBOR STATEMENT UNDER THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995:

This news release contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These statements are based upon our current expectations and speak only as of the date hereof. Our actual results may differ materially and adversely from those expressed in any forward-looking statements as a result of various factors and uncertainties, including the recent economic slowdown affecting technology companies, our ability to successfully develop products, rapid technological change in our markets, changes in demand for our future products, legislative, regulatory and competitive developments and general economic conditions. Our Annual Report on Form 10-K, recent and forthcoming Quarterly Reports on Form 10-Q, recent Current Reports on Forms 8-K and 8-K/A, and other SEC filings discuss some of the important risk factors that may affect our business, results of operations and financial condition. We undertake no obligation to revise or update publicly any forward-looking statements for any reason.