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): April 15, 2004

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

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

150 S. Los Robles, Ste. 480, Pasadena, CA	91101
(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.

Nanokinetics, Inc.

On April 21, 2004, Arrowhead Research Corporation, a Delaware corporation ("Arrowhead Research"), entered into an agreement with Dr. Michael Roukes and the California Institute of Technology ("Caltech"), to form a new corporation, Nanokinetics, Inc., that will focus on the development of the processes and devices needed to commercialize various nanotechnology applications. Pursuant to this agreement, Caltech would grant to Nanokinetics a fully-paid, worldwide, exclusive license to use for commercial purposes certain technology developed by Dr. Roukes and his research group at Caltech. As payment in full for the technology license, Caltech will be granted a warrant to purchase, for a nominal consideration, shares of the new company's common stock.

Dr. Roukes is a California Institute of Technology physics professor who has gained worldwide recognition through his work on the physics and fabrication of nanoscale electronic devices. He is the newly named founding Director of Caltech's Kavli Nanoscience Institute, which recently received a $7.5 million grant to foster innovative research at the frontiers of nanoscale science and engineering.

To date, nanoscience has focused on the development of individual devices at research universities like Caltech, and elsewhere. Nanokinetics has been formed to build upon intellectual property developed by Dr. Roukes and his group that focuses on the incorporation of various nanoscience discoveries to produce integrated systems of nanotech devices that can provide the basis of products to be manufactured in commercial quantities. Within a period of approximately twelve months, Nanokinetics intends to implement this technological base by establishing the facilities, processes, and techniques required for commercial production of one or more nanotech products to be developed by Nanokinetics for target markets. For example, one application under development by Dr Roukes and his team is a microfluidic-based electronic biosensor based upon BioNEMS (biofunctionalized nanoelectromechanical systems). In the near term, nanosystems such as this, with nanoscale sensor elements numbering in the hundreds and thousands, are expected to provide powerful new approaches to bio-threat detection, drug screening, and medical diagnostics -- with sensitivity approaching the single molecule level.

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 $18,000,000 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. Roukes and his mutually acceptable designees, including a chief executive officer to be subsequently identified. Options will be granted to Dr. Roukes and his designees that will vest over a 4-year period. Dr. Roukes will also be granted an option to purchase, at $1.00 per share, 200,000 shares of the Common Stock of Arrowhead Research.

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, to approximately 45.5% of the then outstanding voting securities. However, as owner of all outstanding preferred stock, Arrowhead Research at all times will have the right to elect a majority of the members of the new company's Board of Directors, with the remaining directors to be elected by Dr. Roukes 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. Roukes and his group.

Execution of the agreement to form Nanokinetics, Inc. was publicly announced by Arrowhead Research on April 22, 2004, by means of a Press Release, a copy of which is filed as an exhibit hereto.

Insert Therapeutics, Inc.
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On April 15, 2004, Arrowhead Research agreed to acquire a majority position in Insert Therapeutics, Inc., a Pasadena-based company focused on designing, developing and commercializing delivery-enhanced therapeutics using its patented class of polymeric delivery systems.

With research being led by Dr. Mark Davis, a professor of chemical engineering at the California Institute of Technology, Insert Therapeutics is currently expanding and leveraging its platform technology, Cyclosert(TM), through an internal small-molecule drug development program, a gene-therapy collaboration with San Diego-based Canji, Inc., a subsidiary of Schering-Plough.

The founder of Insert Therapeutics, Dr. Davis is a Member of the National Academy of Engineering and a recipient of numerous awards including the prestigious Alan T. Waterman Award, given by the National Science Foundation annually to only one scientist in the United States across all disciplines. Dr. Davis was the first engineer to win this award for his work in rationally designed materials. Dr. Davis earned his B.S., M.S. and Ph.D. degrees in Chemical Engineering, holds over 30 patents, has published more than 300 papers and has presented over 450 seminars throughout the world.

Insert has designed a novel class of "intelligent" polymers that incorporate properties for the intracellular, systemic delivery of a broad range of therapeutics. The polymer-therapeutic composites form nanoparticles that have designable size and functions. These "smart" nanoparticles can deliver therapeutics ranging from small molecules to genes and their combinations. Unlike passive drug carriers, Cyclosert polymers respond to biological mechanisms and micro-environmental conditions enabling the active release of their therapeutic payload into tumor cells or other selected tissues, that can be targeted with the attachment of various cell surface receptor ligands.

Cyclosert's linear cyclodextrin-containing polymers can be designed to be neutral, positively charged or negatively charged. This feature is unique to Cyclosert technology and provides great flexibility for formulation and delivery. Cyclosert has been synthesized at molecular weights high enough to provide for to slowed renal clearance, enhanced circulation time and improved accumulation of active drug at the target tissue. Using Cyclosert, Insert expects to be able to significantly improve the solubility, stability, toxicity, efficacy and pharmacokinetic characteristics of anticancer drugs.

Arrowhead Research has agreed to provide $2,000,000 of initial capital to Insert Therapeutics, to purchase shares of preferred stock, and to contribute up to $3,000,000 of additional capital as certain milestones in the further development of its business are met. For its investment, Arrowhead Research will acquire approximately 64% of the voting securities of Insert Therapeutics, with the balance to be owned by management and existing shareholders. The agreement provides that the Board of Directors of Insert Therapeutics will consist of three individuals, the current Chief Executive Officer and two designees of Arrowhead Research. An option pool has been established pursuant to which options to purchase additional shares of common stock may be granted by the Board of Directors to employees and officers of, and consultants to, Insert Therapeutics. In the event that all of these options were granted and exercised, the ownership of Arrowhead Research in the Inert Therapeutics would be reduced, but not below 50% of the then outstanding voting securities.

Execution of the agreement to acquire a controlling interest in Insert Therapeutics, Inc. was publicly announced by Arrowhead Research on April 22, 2004, by means of a Press Release, a copy of which is filed as an amendment hereto.

Aonexx Technologies, Inc.
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Previously, by a press release dated March 9, 2004, Arrowhead Research announced an agreement to form its first nanotech subsidiary with Dr. Harry A Atwater and his research group at the California Institute of Technology. On April 20, 2004 a second press release was issued to announce the name of the new corporation, Aonexx Technologies, Inc. ("Aonexx"), and that Sean Olson has been named as the President of Aonexx. On April 20, 2004, the formation and organization of Aonexx was completed, with Arrowhead Research making its contribution of $2,000,000 to the capital of Aonexx in exchange for preferred stock representing 80% of the voting securities of the company, with a commitment to inject an additional $3,000,000 if certain milestones are met.

Aonexx was formed to commercialize a patented method for transferring nano-layers of semiconductor materials (e.g., indium phosphide, germanium, and gallium arsenide) and oxides (e.g., barium titanate, lithium niobate, and PMNPT) onto low-cost substrates (e.g., silicon, sapphire, and glass), with no adhesives and with controlled stress.

Early applications are expected to include the development of inexpensive laminate wafers (e.g., indium phosphide on silicon and germanium on silicon) that could replace expensive, homogenous compound semiconductor substrates. These 'replacement' wafers are expected to reduce manufacturing costs and improve performance for devices such as LEDs, power amplifiers for wireless communications, and high-efficiency solar cells. Aonexx is currently scheduled to have limited samples available for evaluation purposes by qualified customers within three months.

Aonexx is also exploring the use of the technology to support the integration of different semiconductor materials onto a single substrate. Such a technology would enable optical, logical, and high frequency power amplification devices to be integrated into single dies - an industry trend

termed 'system on a chip' (SoC) - and bring with it opportunities for significant cost savings and performance improvements. Ultimately, the company hopes to enable the optical and electrical properties of device active regions to be engineered independently of the underlying substrate's thermal, dielectric, and mechanical properties.

Mr. Olson, age 33, joins Aonexx with four years of technical and business experience in the semiconductor industry and three years of experience working with new ventures as a management consultant and venture capitalist. He served in engineering and management positions at Silicon Valley Group Lithography (acquired by ASML), and supported technology and business development efforts at Oraxion Diagnostics, a start-up in the metrology space. He was also a strategy consultant for The Boston Consulting Group. Mr. Olson received his bachelor's and master's degrees in engineering from the Massachusetts Institute of Technology and a master's degree in Business Administration from the Harvard Business School.

The press release dated March 9, 2004 announcing the agreement to form the new company now known as Aonexx was previously filed as an exhibit to the Current Report on Form 10-K filed by Arrowhead Research with the Securities and Exchange Commission on March 10, 2004. A copy of the press release dated April 20, 2004, regarding the appointment of Mr. Olson as the President of Aonexx is filed herewith as an exhibit hereto.

ITEM 7. FINANCIAL STATEMENTS AND EXHIBITS.

(c) Exhibits.

Exhibit No.		Description	Page No.
A	-	Press Release dated April 22, 2004, regarding Nanokinetics, Inc.	5
B	-	Press Release dated April 22, 2004, regarding Insert Therapeutics, Inc.	6
C	-	Press Release dated April 20, 2004, regarding the appointment of Sean Olson as the President of Aonexx Technologies, Inc.	7

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: April 22, 2004

ARROWHEAD RESEARCH CORPORATION

By: /s/ R. Bruce Stewart

R. Bruce Stewart, President

[GRAPHIC OMITTED]
Arrowhead Research
Corporation

PRESS RELEASE
Tuesday, April 20, 2004
7:00 am EDT

ARROWHEAD RESEARCH CORPORATION'S NEW NANOTECH SUBSIDIARY, AONEXX TECHNOLOGIES, INC., NAMES PRESIDENT

Pasadena, California - (PR Newswire) - April 20, 2004 - Arrowhead Research Corporation (OTCBB: ARWR) announced today that its newly-formed nanotech subsidiary, Aonexx Technologies, Inc., has named Mr. Sean Olson as President. Aonexx Technologies is developing patented nano-layer transfer technologies and system integration solutions for the compound semiconductor industry.

"Sean has a wealth of experience, strong leadership skills, and a clear strategic vision for the Company. He is also deeply knowledgeable on both the business principles and technologies that drive the semiconductor industry," said Harry Atwater, the Caltech Professor who developed the technology and co-founded the Company with Arrowhead Research. "We are very pleased to have him on the team."

Mr. Olson joins Aonexx with technical and business experience in the semiconductor industry. He served in engineering and management positions at Silicon Valley Group Lithography (acquired by ASML), and supported technology and business development efforts at Oraxion Diagnostics, a start-up in the metrology space. He was also a strategy consultant for The Boston Consulting Group. Mr. Olson received his bachelor's and master's degrees in engineering from the Massachusetts Institute of Technology and a master's degree in Business Administration from the Harvard Business School.

Aonexx Technologies was formed to commercialize a patented method for transferring nano-layers of semiconductor materials (e.g., indium phosphide, germanium, and gallium arsenide) and oxides (e.g., barium titanate, lithium niobate, and PMNPT) onto low-cost substrates (e.g., silicon, sapphire, and glass), with no adhesives and with controlled stress.

Early applications are expected to include the development of inexpensive laminate wafers (e.g., indium phosphide on silicon and germanium on silicon) that could replace expensive, homogenous compound semiconductor substrates. These 'replacement' wafers are expected to reduce manufacturing costs and improve performance for devices such as LEDs, power amplifiers for wireless communications, and high-efficiency solar cells. Aonexx is currently scheduled to have limited samples available for evaluation purposes by qualified customers within three months.

The Company is also exploring the use of the technology to support the integration of different semiconductor materials onto a single substrate. Such a technology would enable optical, logical, and high frequency power amplification devices to be integrated into single dies - an industry trend termed 'system on a chip' (SoC) - and bring with it opportunities for significant cost savings and performance improvements. Ultimately, the company hopes to enable the optical and electrical properties of device active regions

to be engineered independently of the underlying substrate's thermal, dielectric, and mechanical properties.

ABOUT ARROWHEAD RESEARCH CORPORATION

Arrowhead Research Corporation funds research at universities in pioneering scientific areas, primarily nanotechnology, in return for exclusive rights to commercialize technologies and associated intellectual property and patents developed as a result of this research. The Company has already entered into agreements with the California Institute of Technology and three of its faculty, and is actively pursuing other potential partners at Caltech and other leading research institutions and universities.

Commercial applications that arise from Company-sponsored research projects will be developed and marketed by Arrowhead Research through a series of diversified subsidiaries representing each product or application, or through third-party licensing. The first majority-owned subsidiary, Aonexx Technologies, was formed to commercialize an ultrathin crystal film (nanofilm) technology that was developed at Caltech.

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.

CONTACT

R. Bruce Stewart, President
Telephone: 626.792.5549
Email: bruce@arrowres.com

[GRAPHIC OMITTED]
Arrowhead Research
Corporation

PRESS RELEASE
Thursday, April 22, 2004
7:00 am EDT

MAJORITY INVESTMENT MADE IN NEW NANOTECH SUBSIDIARY BY ARROWHEAD RESEARCH CORPORATION

INSERT THERAPEUTICS, INC. TO FURTHER THE DEVELOPMENT AND COMMERCIALIZATION OF SMALL MOLECULE, DRUG DELIVERY SYSTEMS

Pasadena, California - (PR Newswire) - April 22, 2004 - Arrowhead Research Corporation (OTCBB: ARWR), an emerging company in the field of nanotechnology, announced today that it has agreed to take a majority position in Insert Therapeutics, Inc., a Pasadena-based company focused on designing, developing and commercializing delivery-enhanced therapeutics using its patented class of polymers.

With research being led by Dr. Mark Davis, a professor of chemical engineering at the California Institute of Technology, Insert Therapeutics is currently expanding and leveraging its platform technology, Cyclosert(TM), through an internal small-molecule drug development program, a gene-therapy collaboration with San Diego-based Canji, Inc., a subsidiary of Schering-Plough.

The founder of Insert Therapeutics, Dr. Davis is a Member of the National Academy of Engineering and a recipient of numerous awards including the prestigious Alan T. Waterman Award, given by the National Science Foundation annually to only one scientist in the United States across all disciplines. Dr. Davis was the first engineer to win this award for his work in rationally designed materials. Dr. Davis earned his B.S., M.S. and Ph.D. degrees in Chemical Engineering, holds over 30 patents, has published more than 300 papers and has presented over 450 seminars throughout the world.

Insert has designed a novel class of "intelligent" polymers that incorporate properties for the intracellular, systemic delivery of a broad range of therapeutics. The polymer-therapeutic composites form nanoparticles that have designable size and functions. These "smart" nanoparticles can deliver therapeutics ranging from small molecules to genes and their combinations. Unlike passive drug carriers, Cyclosert polymers respond to biological mechanisms and micro-environmental conditions enabling the active release of their therapeutic payload into tumor cells or other selected tissues, that can be targeted with the attachment of various cell surface receptor ligands.

Cyclosert's linear cyclodextrin-containing polymers can be designed to be neutral, positively charged or negatively charged. This feature is unique to Cyclosert technology and provides great flexibility for formulation and delivery. Cyclosert has been synthesized at molecular weights high enough to provide for to slowed renal clearance, enhanced circulation time and improved accumulation of active drug at the target tissue. Using Cyclosert, Insert has significantly improved the solubility, stability, toxicity, efficacy and pharmacokinetic characteristics of anticancer drugs.

ABOUT ARROWHEAD RESEARCH CORPORATION

Arrowhead Research Corporation funds research at universities in pioneering scientific areas, primarily nanotechnology, in return for exclusive rights to commercialize technologies and associated intellectual property and patents developed as a result of this research. The Company has already entered into agreements with the California Institute of Technology and three of its faculty, and is actively pursuing other potential partners at Caltech and other leading research institutions and universities.

Commercial applications that arise from Company-sponsored research projects will be developed and marketed by Arrowhead Research through a series of diversified subsidiaries representing each product or application, or through third-party licensing. The first majority-owned subsidiary, Aonexx Technologies, was formed to commercialize an ultrathin crystal film (nanofilm) technology that was developed at Caltech.

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CONTACT

R. Bruce Stewart, President
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Email: bruce@arrowres.com

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Arrowhead Research
Corporation

PRESS RELEASE
Thursday, April 22, 2004
7:01 am EDT

CALTECH PROFESSOR MICHAEL ROUKES, CALTECH, AND ARROWHEAD RESEARCH AGREE TO FORM NANOKINETICS

NEW SUBSIDIARY TO STRATEGICALLY FOCUS ON COMMERCIAL APPLICATIONS IN NANOTECH FIELD

Pasadena, California - (PR Newswire) - April 22, 2004 - Arrowhead Research Corporation (OTCBB: ARWR), an emerging company in the field of nanotechnology, announced today that it has reached an agreement with Dr. Michael Roukes, California Institute of Technology Professor of Physics, Applied Physics and Bioengineering, and Caltech itself, to form a new corporation, Nanokinetics, that will focus on the development of the processes and devices needed to commercialize various nanotechnology applications. Nanokinetics will be the third majority-owned subsidiary formed by Arrowhead Research.

Dr. Roukes has gained worldwide recognition through his work on the physics and fabrication of nanoscale electronic devices. He is the newly named founding Director of Caltech's Kavli Nanoscience Institute, which recently received a $7.5 million grant to foster innovative research at the frontiers of nanoscale science and engineering.

Nanokinetics plans to focus upon building the technological base required to transition today's academic "nanoscience of the individual device" to the integration and mass production required for these market-ready products. With this process-oriented focus, Nanokinetics hopes to jumpstart the commercialization of many of the nanotech applications already available. Dr. Roukes stated, "It is becoming clearer every day that the companies that make early and decisive investments to establish capabilities for complex nanodevice production will dominate the broader realm of commercial nanotechnology that lie beyond first-generation applications."

One application being developed by Dr. Roukes and his team is a microfluidic-based electronic biosensor based upon BioNEMS (biofunctionalized nanoelectromechanical systems). In the near term, nanosystems such as these, with nanoscale sensor elements numbering in the hundreds and thousands, can provide powerful new approaches to bio-threat detection, drug screening, and medical diagnostics - with sensitivity approaching the single molecule level.

Commenting on this latest addition, R. Bruce Stewart, President of Arrowhead Research, said, "We are obviously very pleased to add the world-class scientist Michael Roukes to our team. In addition to bringing a wide array of experience and knowledge to the Arrowhead Research umbrella, we believe that the formation of Nanokinetics with Dr. Roukes will significantly increase the probability of more rapid commercialization of nanotech products and applications, including those in which our sponsored researchers and other subsidiaries are involved."

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Arrowhead Research Corporation funds research at universities in pioneering scientific areas, primarily nanotechnology, in return for exclusive rights to commercialize technologies and associated intellectual property and patents developed as a result of this research. The Company has already entered into agreements with the California Institute of Technology and three of its faculty, and is actively pursuing other potential partners at Caltech and other leading research institutions and universities.
Commercial applications that arise from Company-sponsored research projects will be developed and marketed by Arrowhead Research through a series of diversified subsidiaries representing each product or application, or through third-party licensing. The Company's majority-owned subsidiaries are Aonexx Technologies, Inc. was formed to commercialize an ultrathin crystal film (nanofilm) technology and Insert Therapeutics, Inc. which is developing a proprietary drug delivery system.

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

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