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): May 13, 2009

Arrowhead Research Corporation

(Exact name of registrant as specified in its charter)

0-21898 (Commission File Number)

Delaware (State or other jurisdiction of incorporation) 46-0408024 (IRS Employer Identification No.)

201 South Lake Avenue, Suite 703, Pasadena, CA 91101 (Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code (626) 304-3400

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 7.01. Regulation FD Disclosure.

On May 13, 2009, Unidym, Inc., a majority-owned subsidiary of Arrowhead Research Corporation (the Company), announced via news release posted on its website, <u>www.unidym.com</u> that it has entered into a joint development agreement with LG Display. As part of the Agreement, Unidym will develop and supply CNT films and CNT inks that are optimized for LGD's purpose.

The release will also be posted on the Company's website at <u>www.arrowheadresearch.com</u>.

A copy of Unidym's news release is attached hereto as Exhibit 99.1.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit No. Exhibit Description

99.1 Unidym, Inc. News Release released dated May 13, 2009.

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 thereunto duly authorized.

Date: May 13, 2009

ARROWHEAD RESEARCH CORPORATION

By: /s/ Paul C. McDonnel

Paul C. McDonnel Chief Financial Officer

AMENDMENT TO JOINT DEVELOPMENT AGREEMENT

This Amendment to the Joint Development Agreement ("First Amendment") is made the day of 2009.

BETWEEN

LG Display Co., Ltd., a Korean corporation having its principal office at 17th FI., LG Twin Tower (West Tower), 20 Yoido-dong, Youngdungpo-gu, Seoul 150-721, Korea ("LGD")

and

Unidym, Inc. a Delaware corporation having its principal office at 1430 O'Brien Drive, Suite G, Menlo Park, California 94025, U.S.A. ("Unidym").

WHEREAS

This First Amendment refers to and amends the Joint Development Agreement (JDA) entered into between LG Display Co., Ltd. and Unidym, Inc. dated February 16, 2009.

NOW THEREFORE, in consideration of the terms and mutual agreements hereinafter defined, the parties have agreed to further amend the JDA as follows:

- The Preamble shall be amended to read, "This Joint Development Agreement ("Agreement") is made and effective as of this 16th day of February, 2008 ("Effective Date") by and between Unidym, Inc, a Delaware Corporation, having its principal place of business at 1430 O'Brien Drive, Suite G, Menlo Park, CA 94025, U.S.A. ("Unidym") and LG Display Co., Ltd., a Korean Corporation having its principal place of business at LG Twin Towers (West), 20 Yoido-dong, Youngdungpo-gu, Seoul, 150-721, South Korea ("LG"); each of Unidym and LG may be referred to herein as a "Party" or, collectively, as the "Parties."
- 2. Section 1 (Definitions) shall include the following definitions:

"Unidym Information" shall mean information regarding WET thickness of CNT dispersion, WET thickness of Topcoat, dry thickness of CNT film, the component of CNT ink, the component of Topcoat ink, CNT uniformity, CNT purity, details about modification of CNT ink, whether or not relating to development of advanced material, methodology for improving CNT film's performance, methodology for improving CNT ink's stability, thermal treatment condition of Topcoat film, sheet resistance, transmittance, nozzle shim thickness, distance from slit die to substrate and coating speed.

"CNT Films" shall mean films coated by Unidym on substrates provided by LG.

3. Section 2.2 shall be amended to include the following language: "Unidym shall provide the Unidym Information to LGD upon LGD's request.

- 4. Section 3.3 shall be added and incorporated into the JDA and shall state the following: "Unidym shall provide to LGD, at Unidym's cost, CNT Films and CNT ink developed during Phase 2 in accordance with Appendix A on or before July 30, 2009.
- 5. Section 3.4 shall be added and incorporated into the JDA and shall state the following: "Unidym shall provide to LGD, at Unidym's cost, CNT Films and CNT ink developed during Phase 3 in accordance with Appendix A on or before November 30, 2009.
- 6. Pursuant to Section 2.1 of the JDA, the Work Statements and Development Milestones as set forth in Appendix A of the JDA shall be deleted in its entirety and the Work Statements and Development Milestones which is attached hereto as Attachment A shall be incorporated in Appendix A of the JDA.
- 7. Pursuant to Section 7.2 of the JDA, the "News Release to be Announced" as set forth in Appendix C of the JDA shall be deleted in its entirety and the "News Release to be Announced" which is attached hereto as Attachment B shall be incorporated in Appendix C of the JDA, provided that Unidym shall only issue the press release as an 8-K filing by Arrowhead Research Corporation, on Unidym's company Website, and on Arrowhead Research Corporation's Website.
- 8. Except as specifically provided herein, the JDA shall remain in full force and effect.
- 9. This First Amendment may be executed in any number of counterparts, each of which shall be deemed to an original, and such counterparts together shall constitute one instrument.

IN WITNESS WHEREOF, the authorized representatives of the Parties have executed this First Amendment on the date and year first above mentioned.

Signed for and on behalf of **Unidym, Inc.**

Name : Designation : Signed for and on behalf of LG Display Co., Ltd.

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Name :

Designation:

ATTACHMENT A Work Statements and Development Milestones

JDA timeline and milestone

Unidym Year		2009-2010												
	Month	1	2	3	4	5	6	7	8	9	10	11	12	
Deliverable	Rs (Ohm/sq) Tr (CNT Only) at 550nm	200 ohm/sq 85%				200 ohm/sq 90%				100 ohm/sq 92%				
Key Technology development (Unidym)		Feasibility				Improvement (I)				Improvement (II)				
		CNT - Syntl	raw material tesis conditio	CNT raw material Development - Catalyst optimization				CNT raw material performance with large scale production						
CNT]	CNT Raw Material		fication/solu	Pu	rification/so	lubilizatio	n (2)	Quality control (QC) for CNT performance						
		Low	light scatter (Haze below	ing CNT f w 0.2%)	film	Lov	v light scatt (Haze bel	ering CN7 low 0.1%)	film [Cher <1	nically sta 0% with I	ıble Rs (D LGD strip	Rs/Rs per)	
		E (N	vispersion op Io slit exiting	timizatior g block etc	1 2)	Dis	persion clea Filtration o	aning (par of dispersi	ticle) on	Dopin	g (Enviro	nmental st	ability)	
D	Dispersion		Development path coa process dispe	Development of single path coating process dispersion (2)				Dispersion stability test for single path coating dispersion and film						
		CNT c (Dual pa	oating proce th) : Washin cleaning(p	ss develoj g/Drying, article)	pment surface	C CI	oating on la NT and topc develc	rge area g coat equipr opment	lass nent	CNT o New p	coating pr (W/I rocess dev le patte	ocess inte LGD) velopment ess erning	gration : Mask-	
		I P	Development ath coating p	t of single process (1))		Developme path coating	ent of sing g process(le 2)	Equipn	nent modi p coa	fication fo ath ating	or single	
Coa & Dev	Coating process & Device integration		Rs and Tr Uniformity (<20%), Uniformity = (Max- Min)/(Max+Min)*100 at 370 * 470 mm					nd Tr ty (< 15%)		Rs and Tr Uniformity (< 10%)				
			Surface activation for TFT-side coating					ct resistan	ce study	Metal/CNT contact resistance improvement				
			Adhesion improvement (1) TAB rework available - Dual path coating				Adhesion improvement (1) TAP rework available- Single path coating				Adhesion improvement (2) TAP rework available-Single path coating			
		Roughness reduction (RMS< 10nm)					Roughness (RMS	s reduction < 5nm)	1	Roughness reduction (RMS < 2 nm)				

LG-Display

Year Month		2009-2010												
		1	2	3	4	5	6	7	8	9	10	11	12	
Deliverable	Rs(Ohm/sq) Tr (CNT only) at 550 nm		200 o 85	hm/sq %			200 o 90	hm/sq 9%		100 ohm/sq 92%				
Key Technology development (LGD)		Feasibility					Unit proc	ess set-up		Proto-type (I)				
			Adhesion te	st _3M tap	e	1	Adhesion te	est_3M tape	2	Confir	mation Spec	:-in CNT n	naterial	
Material evaluation			Chemica	l stability		C/R	test (CF po	ol btw TFT	pol)	Chemical stability For new dispersion CNT				
Coating process		(DRs/F	Thermal s<10%, at 23	stability 0°C(1000s	sec) in air)	Improv	ed CNT ma	aterial's eva	aluation	Thermal stability for new dispersion CNT (DRs/Rs <5%, at 230 °C (1000 sec) in air)				
		CNT co	oat on glass (I Tr uniform	LGD Slit co ity < 20%)	oater) (Rs-	CNT cc below 10	oat on glass %) Compan path dis	(Rs-Tr uni rison dual a spersion	formity ind single	CNT coat on glass for single path coating (Rs-Tr uniformity below 10%)				
		In-ho	ıse (LGD) Sli coatin	it nozzle de g trial	esign and	(C	Process in oating-was	tegration 1 hing- dryir	ıg)	Process integration 2 (Coating- washing-drying)				
		IPS electrode unit process test on CNT				Un elec	it process s ctrode for T	et-up of C TFT backpl	NT ane	Confirmation Spec-in CNT material				
			Line re	sistance		Ta	b rework te	est (adhesic	n)	Target	spec decisio	on (IPS/TN	LCD)	
Device i	ntegration	CNT dry etch process set up Patterning of CNT film (IPS pattern)				Contact re el	esistance te ectrode coa	est btw S/D ated by LG	and CNT D	LC process setup with CNT film 12 (PI, Rubbing, H/P etc)				
		Rs test & Light scattering test				LC p	orocess feas interact	sibility (PI- ion etc)	CNT	IPS mode LCD proto-type 1 (17inch) With final dispersion				

Unidym

PRESS RELEASE May 13, 2009 Contact: Dr. Mark Tilley Unidym, Inc. 650-462-1935 pr@unidym.com

UNIDYM AND LG DISPLAY SIGN JOINT DEVELOPMENT AGREEMENT

PASADENA, Calif.- Unidym, a majority owned subsidiary of Arrowhead Research Corporation (NASDAQ: ARWR), announced today that it has entered into a one-year agreement ("the Agreement") with LG Display (LGD). As part of the Agreement, Unidym will develop and supply CNT films and CNT inks that are optimized for LGD's purpose.

"This collaboration with LGD, a leading LCD manufacturer and supplier, further validates our market opportunities in LCDs and touchscreens, and underscores our leadership position in CNTs," stated Dr. Mark Tilley, Chief Executive Officer of Unidym. "Building on recent successes in the display market, we are very pleased with this important step in what we anticipate will be a long-term and mutually beneficial relationship with LG Display."

Unidym sells carbon nanotube-based transparent, conductive films (TCFs) for the electronics industry. TCFs are a key component of devices such as touch panels, displays, and thin-film solar cells. For example, both touch panels and LCDs typically employ two TCF layers per device. Unidym's TCFs offer substantial advantages over the incumbent technology, indium-based metal oxides, including lower cost structure, improved durability, and simplified processing.

About Unidym, Inc.

Unidym is a leader in the manufacture and application of carbon nanotubes (CNTs), a novel material with extraordinary electrical, thermal, and mechanical properties. Unidym provides CNT-enabled products and intellectual property to a wide range of customers and business partners. As a result of its recent merger with CNI, Unidym possesses a foundational patent portfolio that covers nearly every aspect of CNT manufacturing and processing as well as multiple product applications.

Unidym is focused on the electronics industry where its initial products include: transparent electrodes for touch screens, flat panel displays, and solar cells; and thin film transistors for printable electronics. Unidym is also pursuing a cross-industry licensing program to capitalize on the wide ranging applications of CNTs.

About LG Display

LG Display Co., Ltd [NYSE: LPL, KRX: 034220] is a leading manufacturer and supplier of thin-film transistor liquid crystal display (TFT-LCD) panels, OLEDs and flexible displays. The company provides TFT-LCD panels in a wide range of sizes and specifications for use in TVs, monitors, notebook PCs, and other various applications. LG Display currently operates seven fabrication facilities and five back-end assembly facilities in Korea, China and Poland. The company has a total of 23,000 employees operating worldwide Please visit http://www.lgdisplay.com for more information.

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 future success of our scientific studies, 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. Arrowhead Research Corporation's Annual Report on Form 10-K and 10-K/A, recent and forthcoming Quarterly Reports on Form 10-Q and 10-Q/A, recent Current Reports on Forms 8-K and 8-K/A, our Registration Statements on Form S-3, 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.