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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 21, 2012

ADVENTRX Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware

001-32157

84-1318182

(State or other jurisdiction  
of incorporation)

(Commission  
File Number)

(I.R.S. Employer  
Identification No.)

12390 El Camino Real, Suite 150, San Diego,  
California

92130

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code:

858-552-0866

Not Applicable

Former name or former address, if changed since last report

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))
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**Item 7.01 Regulation FD Disclosure.**

On May 21, 2012, ADVENTRX Pharmaceuticals, Inc. ("ADVENTRX" or the "Company") became aware that on May 17, 2012 BioMedReports.Com published a video interview with Brian M. Culley, the Company's Chief Executive Officer, which interview was given on March 12, 2012. A transcript of the interview is furnished as Exhibit 99.1 hereto.

The information furnished by this current report on Form 8-K, including Exhibit 99.1 hereto, is summary information that should be considered in the context of the Company's filings with the U.S. Securities and Exchange Commission ("SEC"), including its most recent annual report on Form 10-K and quarterly report on Form 10-Q, and other public disclosures that it has made and may make from time to time through filings with the SEC or by press release.

ADVENTRX cautions you that statements made during the interview that are not a description of historical facts are forward-looking statements that are based on ADVENTRX's current expectations and assumptions as of the date of the interview. Such forward-looking statements include, but are not limited to, statements regarding ADVENTRX's development plans and progress for ANX-188, including the nature and timing of future clinical studies, ANX-188's potential as an effective treatment for sickle cell disease patients and the potential commercial value of ANX-188. Among the factors that could cause or contribute to material differences between ADVENTRX's actual results and those indicated from the forward-looking statements are risks and uncertainties inherent in ADVENTRX's business, including, but not limited to: the potential for ADVENTRX to delay, reduce or discontinue current and/or planned development activities, partner its product candidates at inopportune times or pursue less expensive but higher-risk development paths if it is unable to raise sufficient additional capital as needed; ADVENTRX's ability to obtain additional funding on a timely basis or on acceptable terms, or at all; the potential for delays in the commencement or completion of its planned clinical studies including as a result of difficulties or delays in completing manufacturing process development activities and manufacturing clinical trial material; the risk of suspension or termination of a clinical study including due to lack of adequate funding; the risk that planned clinical studies of ADVENTRX's product candidates, including ANX-188, are not successful and, even if they are successful, that the FDA could determine they are not sufficient to support an NDA for the product candidate; the risk that the FDA does not grant market approval of ADVENTRX's product candidates, including ANX-188, on a timely basis, or at all; ADVENTRX's reliance on third parties to assist in the conduct of important aspects of its product candidates' development programs, including the manufacture of clinical trial material, the conduct of clinical studies and regulatory submissions related to product approval, and that such third parties may fail to perform as expected; the risk that intellectual property protection ADVENTRX obtains with respect to its product candidates, including ANX-188, is insufficient to provide a competitive advantage; and other risks and uncertainties more fully described in ADVENTRX's filings with the SEC, including its most recent quarterly report on Form 10-Q.

You are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date when made. ADVENTRX does not intend to revise or update any forward-looking statement contained herein to reflect events or circumstances arising after the date of the interview, except as may be required by law.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits.

The list of exhibits called for by this Item is incorporated by reference to the Exhibit Index filed with this report.

The information in this current report on Form 8-K, including Exhibit 99.1 hereto, is being furnished by the Company and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that Section, and is not to be incorporated by reference into any registration statement or other filing of the registrant, whether made before or after the date hereof, regardless of any general incorporation language in any such filing, except as may be expressly set forth by specific reference in such filing.

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**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.

ADVENTRX Pharmaceuticals, Inc.

May 21, 2012

By: */s/ Patrick L. Keran*

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*Name: Patrick L. Keran*  
*Title: President and Chief Operating Officer*

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Exhibit Index

<b>Exhibit No.</b>	<b>Description</b>
99.1	Transcript of Brian M. Culley interview with BioMedReports.Com on March 12, 2012

**Interview of Brian M. Culley, Chief Executive Officer of ADVENTRX Pharmaceuticals, Inc. by Andrew Deniken, Corporate Research Advisor, BioMedReports.Com**

*Recorded on March 12, 2012; published by BioMedReports.Com on May 17, 2012*

**Deniken: I'm here with Brian Culley the CEO of ADVENTRX, ticker symbol "ANX" on the Amex. Thank you for joining us.**

**Culley:** My pleasure.

**Deniken: Brian, could you tell us a little bit about your company?**

**Culley:** Sure. ADVENTRX is an emerging biopharmaceutical company. We're publicly traded on the Amex under the ticker "ANX." The company is well capitalized. We own the right to develop three different programs and the most important of which is something called ANX-188. It is an antithrombotic and rheologic polymer that we're going to be testing in sickle cell disease.

**Deniken: Okay. Well why don't we talk about ANX-188 for just a moment. You say it's an antithrombotic polymer. Could you explain that just for a moment?**

**Culley:** Sure. It's a very interesting drug. It has the ability to bind to damaged portions on cells, in particular red cells and white cells in the blood stream. What it does is it acts like a membrane sealant. It binds to damaged regions and sort of coats or protects them. By doing so, it lowers viscosity. When you have lower viscosity in the blood stream, your cells are able to transport more easily and they can do their job, such as deliver oxygen to tissues. So it is a drug that allows the cells to deliver oxygen to tissues when otherwise they would have some difficulty in doing so due to viscosity. So it lowers viscosity of the cells in the blood stream.

**Deniken: Okay. So in the case of sickle cell anemia, which you are about to begin a phase 3 trial on later this year, how does it affect that disease?**

**Culley:** Well, patients that have sickle cell disease from time to time; they are afflicted by something called a vaso-occlusive crisis. What happens here is there's a trigger event where the proportion of red blood cells in their blood stream increases. Those red blood cells that are sickled don't have the same ability to transport themselves through the circulatory system. They are long, they are sickled shaped, and they're more rigid because they have polymerized hemoglobin inside of them. The reason why this is a problem for patients is that those sickled cells will log jam. It's exactly like a bunch of logs flowing down a river and hitting a turn. These cells will stick together and they will log jam and the effect of that is the inability of those cells to deliver oxygen to tissues. When you don't get oxygen to tissues, you have starved tissue, you have ischemia, you have necrosis, which is death of tissue, and you have pain. So the manifestation of this event for a patient with sickle cells crisis is that he or she will go to the hospital and will lay there for 2, 5, 7 or 8 days suffering in tremendous pain. They receive hydration and they receive opioid analgesia, so pain medication, but there's no intervention for that crisis. That patient has to wait until those log jams cleared, the proportion of sickled cells is reduced back to their normal state and the patient is then out of painful crisis. What we're trying to do with 188 is get this drug, which helps improve the viscosity; it lowers the viscosity so that the cells can move through the circulatory system a lot faster and easier, they can deliver oxygen, and the upshot is that the patient should be getting out of crisis sooner. So we want them out of the hospital sooner, we want them back home sooner and this will be the only drug that will be approved to intervene in what's called vaso-occlusive crisis.

**Deniken: So not only will the patient be out of the traumatic pain that they're in faster with your drug but also it will reduce hospital days and reduce costs?**

**Culley:** Yeah, I think it's really important these days. There's so much attention on drugs. Not only do drugs offer a clinical or a medical benefit, but do they also offer an economic benefit? And I think with 188, we really have that in spades. We can demonstrate quite clearly the economic advantages of getting people out of the hospital sooner and, of course, the humanistic benefits of getting people out of pain. Well, some people would say you can't put a price tag on that but it's awfully important.

**Deniken: Okay. Could you talk about the trial that's upcoming and what the clinical endpoint is going to be?**

**Culley:** Certainly. We are very eager to start this trial. There are a couple of things that we need to do first. One of those is we need to manufacture the clinical trial material, so the work there is ongoing. The other thing that we need to do is to finalize the protocol. You really have to make sure that your protocol is as perfect as can be before you start these studies. So we're working with key opinion leaders throughout the country. They're helping evaluate our ideas. Of course, we're also working with the FDA getting feedback from them, what do they think is important in the protocol, what do they think is less important in the protocol. So it's an iterative process of refining and improving the protocol. When that process is complete and when the clinical trial material is ready to go then we can start opening up clinical trial sites and enrolling patients. We don't have the final numbers yet, but it's likely that the study size is going to be in the 300 to 400-patient range, probably involve 30 or 40 clinical trials sites, and take a couple of years to enroll the full complement of patients.

**Deniken: We were speaking earlier and you told me how you acquired this product. Would you like to take a minute to talk about the history of the product?**

**Culley:** Sure. It's a colorful product. Because it has the ability to improve blood flow, one could apply it in a lot of different settings. A prior sponsor of this product tested it into phase 3 in sickle cell disease. Now they made a handful of mistakes. You know, to their credit it was the first large-scale sickle cell trial ever done so there were bound to be some things that didn't work out well for them. But they also didn't enroll the number of patients that they had planned to enroll and they had some, what I believe are, design flaws in the protocol. So although they had some things stacked against them, they very nearly succeeded. They did show a benefit. They did show that you could reduce the duration of crisis and they nearly showed statistical significance with that. It wasn't enough to get the product approved and, in fact, it ended up being something that they were not able to go forward with, but for ADVENTRX, we feel that we are able to quite well define exactly what the errors were the first time it was tested. So we're looking to improve upon the original design. We've gone out into the community to find out what's changed since the study was done the first time so that we can do it and actually show that the benefit is statistically significant. So we're quite encouraged that the fact that there's been a demonstration that the drug is active and it has a benefit. But, as happens in clinical development, sometimes there are some mistakes that are made and I think we're going to be able to improve upon those. So we are now a vehicle for what I hope will be the final testing of this product in sickle cell disease patients.

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**Forward-Looking Statements**

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