

# A Biopharmaceutical Company That Breaks New Ground



## STOCK INFORMATION:

As of January 26, 2010

Ticker/exchange: NASDAQ:AMAG

Closing Price: \$45.08

52-week Range: \$22.20-\$58.23

Market Cap: ~\$940 million

Shares Outstanding: ~21 million

## SELECTED FINANCIALS:

For the three months ended September 30, 2009

Cash, Cash Equivalents, Investments and Settlement Rights: \$151.8 million

Total Operating Expenses: \$25.6 million

Net Loss: \$22.1 million, or \$1.29 per basic and diluted share

YEAR FOUNDED: 1981

EMPLOYEES: Over 280

## ANALYST COVERAGE:

R.W. Baird & Co.  
Chris Raymond

CanaccordAdams  
Adam Cutler

Citigroup Investment Research  
Yaron Werber, MD

Jefferies & Co.  
Eun Yang, PhD

J.P. Morgan  
Matthew Roden, PhD

Ladenburg Thalmann  
Juan Sanchez, MD

Leerink Swann  
Joseph Schwartz

Morgan Stanley  
Marshall Urist

Needham & Co.  
Mark Monane, MD

Summer Street Research  
Carol Werther

AMAG Pharmaceuticals, Inc. is followed by the analysts listed above. Please note that any opinions, estimates or forecasts regarding AMAG's performance made by these analysts are theirs alone and do not represent opinions or forecasts of AMAG or its management. AMAG does not by its reference above or distribution imply its endorsement of or concurrence with such information, conclusions or recommendations.

AMAG Pharmaceuticals, Inc. is a biopharmaceutical company that utilizes its proprietary technology for the development and commercialization of a therapeutic iron compound to treat anemia and novel imaging agents to aid in the diagnosis of cancer and cardiovascular disease.

Feraheme® (ferumoxytol) Injection is indicated for the treatment of iron deficiency anemia in adult patients with chronic kidney disease.

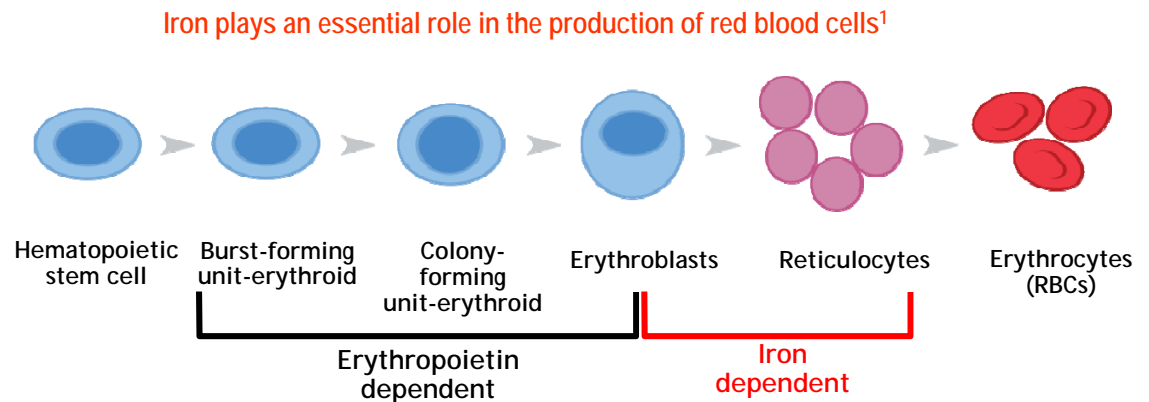
Feraheme is being developed to treat iron deficiency anemia associated with other conditions and disease states including women with abnormal uterine bleeding, and patients with cancer and gastrointestinal diseases.

Feraheme is also being developed as a diagnostic agent for vascular-enhanced magnetic resonance imaging to assess peripheral arterial disease.

For more information on Feraheme, please visit [www.feraheme.com](http://www.feraheme.com).

## Iron Deficiency Anemia

Hemoglobin is the oxygen carrying component of red blood cells. Iron is a critical component of hemoglobin and is essential for oxygen transport and exchange. Iron is critical to healthy cell replication and brain function. Iron deficiency anemia is common in patients with chronic kidney disease as well as several other conditions, and can be caused by decreased nutritional intake, poor absorption, increased blood loss due to multiple blood draws. Many patients with iron deficiency anemia require iron replacement therapy.



## Feraheme in Chronic Kidney Disease

Feraheme is composed of superparamagnetic iron oxide particles with a semi-synthetic carbohydrate coating. The iron in Feraheme is easily utilized by the body and incorporated into the body's iron stores. As a result, we believe that Feraheme will be well suited for use as an intravenous iron replacement therapeutic agent for the treatment of iron deficiency anemia in adult chronic kidney disease patients. Its key characteristics and attributes include:



- Isotonic formulation which allows direct administration as an injection, without the need for dilution
- Rapid intravenous injection of a 510 mg dose in as quickly as 17 seconds
- A one gram course of therapy may be given in less than a week
- Can be administered at any time during dialysis treatment
- Can be stored at room temperature

## EXECUTIVE MANAGEMENT:

**Brian J.G. Pereira, MD**  
*President and CEO*

**David A. Arkowitz**  
*Executive Vice President,  
Chief Financial Officer and  
Chief Business Officer*

**Lee F. Allen, MD, PhD**  
*Executive Vice President and  
Chief Medical Officer*

**Louis Brenner, MD**  
*Senior Vice President*

**Robert M. Brenner, MD**  
*Senior Vice President, Medical Affairs*

**Joseph L. Farmer**  
*General Counsel and  
Senior Vice President, Legal Affairs*

**Timothy G. Healey**  
*Senior Vice President,  
Commercial Operations*

**Chris White**  
*Senior Vice President,  
Business Development and  
Corporate Planning*

**Ricardo Zayas**  
*Senior Vice President, Operations*

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[www.amagpharma.com](http://www.amagpharma.com)

## Clinical Studies

*Feraheme* was evaluated in over 1,500 patients, across all stages of chronic kidney disease, with or without concomitant erythropoiesis stimulating agent therapy in four pivotal phase III studies. All primary and secondary endpoints were met with statistical significance. In particular, *Feraheme* treatment resulted in a significant improvement in hemoglobin levels among chronic kidney disease patients compared to oral iron. *Feraheme* was administered as 510 mg injections as rapidly as 17 seconds, reducing the treatment burden for patients and medical staff by requiring less frequent administrations.



## Market Opportunity

The total chronic kidney disease patient population in the U.S. is large and growing, and is generally segmented into dialysis dependent patients and patients not on dialysis. We estimate that approximately 90% of the 393,000 patients currently on dialysis require iron supplementation.<sup>2</sup> In 2008, total sales of IV iron in the U.S. were approximately \$543 million, the majority of which is believed to be for dialysis patients.

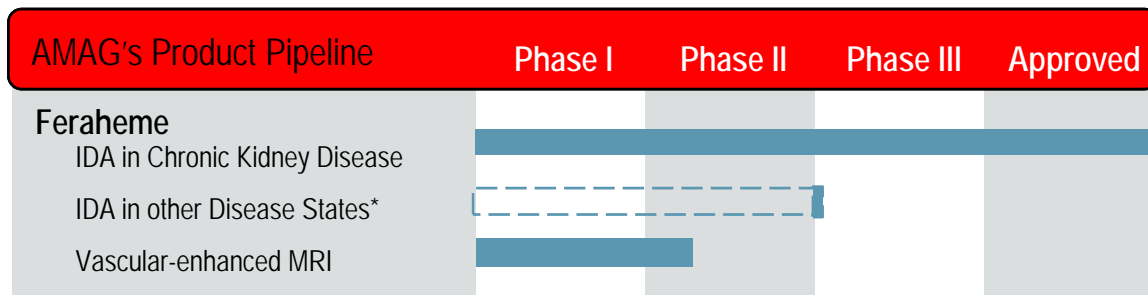
We believe that IV iron is currently underutilized in the non-dialysis chronic kidney disease population. Of the more than 18 million non-dialysis chronic kidney disease patients with advanced disease (stage 3 and 4), we estimate that over 1.6 million are iron deficient and would therefore benefit from receiving IV iron.<sup>3,4</sup> In this patient population we plan on redefining the treatment paradigm by emphasizing the correction of iron deficiency. In addition, *Feraheme's* profile and attributes may be well suited for use in this patient population, which is largely treated in the doctor's office. Therefore, we believe that iron deficiency anemia (IDA) in the non-dialysis chronic kidney disease patient population represents a significant commercial opportunity for *Feraheme*.

## Feraheme Beyond Chronic Kidney Disease

In 2009, we intend to advance our clinical development programs in populations other than chronic kidney disease. A broad range of patients is being considered, which may include women with abnormal uterine bleeding, patients undergoing various surgical procedures, and patients with cancer and gastrointestinal diseases. We are in discussions with the FDA to determine the potential design of these clinical development programs.

In addition to its use for the treatment of iron deficiency anemia, *Feraheme* may also be useful as a diagnostic agent for vascular-enhanced magnetic resonance imaging (MRI) because of its potential to improve the visualization of blood vessels. There are currently no iron-based vascular contrast agents approved for MRI in the U.S. The approved contrast agents used for MRI in the U.S. are all gadolinium-based and are associated with rare but severe adverse events in patients with chronic kidney disease.

The initial focus of our clinical development of *Feraheme* as an imaging agent is in patients with peripheral arterial disease, where we have already begun a Phase II study.



\*Including abnormal uterine bleeding, cancer, and gastrointestinal diseases.  
Study design and timelines are subject to completion of FDA discussions and protocol review.

1. Adapted from Bron D et al. *Semin Oncol*. 2001; 28: 1-6. ; Weiss, G. and L. T. Goodnough. Anemia of chronic disease. *N Engl J Med* 2005; 352(10):1011-23.
2. USRDS 2007 Annual Data Report. Figure 11.28
3. NDD-CKD: Coresh J. et al. Prevalence of Chronic Kidney Disease in the United States. *JAMA*, November 2007. DD-CKD: USRDS 2009 Annual Data Report. Projected counts of prevalent dialysis patients in 2009, Figure 2.2
4. Fishbane, S. et al. Iron Indices in CKD in the NHANES 1988-2004, *CJASN*, Jan. 2009 Vol 4 No 1