

Bio pioneer's

**Tony Hooper, EVP,
global commercial
operations for
Amgen**

Amgen entered 2013 with two of its oldest brands starting down the patent cliff—erythropoietin drugs Epogen and Neupogen—and bracing for Neulasta to follow in 2015. It paid the US government \$24.9 million to settle claims that it gave kickbacks to long-term-care pharmacy providers to influence them to prescribe anemia drug Aranesp, which followed a \$762-million payment in December 2012 to settle another False Claims Act case. It prepared for the inevitable arrival of so-called biosimilars. Atop its corporate masthead, there was a new CEO and a new head of R&D; 160 staffers were laid off.

If you looked at that news in a vacuum, you'd think the only awards for which Amgen might compete would be Most Beleaguered Company. Instead, due to the skill, nimbleness and unflagging energy with which it tackled these challenges—not to mention a rich product pipeline, a surge in 2013 sales and a forward-minded growth strategy—Amgen is *MM&M's* Company of the Year, the first biotech firm to be so honored. Since Amgen is the sole remaining fully integrated developer, manufacturer and marketer of biotherapeutics left to have emerged from the biotech sector of pharma, that's no small feat.

In advance of the patent expirations on Epogen and Neupogen, which together generated \$3 billion in US sales in 2012, Amgen faced pressure to prepare for the loss of a substantial chunk of revenue.

The company did so by effecting a series of canny moves, some strategic and some tactical. The \$10.4-billion purchase of Onyx Pharmaceuticals, announced over the summer and finalized Oct. 1, boosted Amgen's

brand clinic

**2013
PRODUCT
SALES***
(US EXPIRY)

**Neupogen/
Neulasta**
\$4.4B
(2013/2015)

Enbrel
\$3.4B (2028)

Aranesp
\$1.4B (2024)

Epogen
\$1.4B (2013)

Xgeva
\$733M (2017)

Prolia
\$508M (2017)

* Global, 9 mos. to
Sept. 2013
Source: The company

MANUFACTURING MATTERS with Biological Medicines

Share Registration

17 75

Biological Medicines Biological & Small-Molecule Medicines The Manufacturing Process Expert Opinion

BIOLOGICAL MEDICINES—CHANGING THE PRACTICE OF MEDICINE

The development of biological medicines has changed how doctors treat certain serious illnesses, helping millions of people in their fight against cancer, blood disorders, diabetes, kidney, inflammatory, and neurological disorders.¹

Building confidence in the safety and supply of biological medicines starts with a deeper understanding of how these treatments are made. After all, there's so much at stake.

That's why Manufacturing Matters.

▶ Learn more about the science of creating a biological medicine

Above: Amgen's BuildingBiologics.com uses infographics and videos to convey the nuances of biologics manufacturing; below: Prolia sales (left) rose after the company started re-running its Blythe Danner (right) ads on TV.

already strong presence in the lucrative cancer drug market. Against steep odds, Amgen orchestrated a resurgence of the firm's denosumab franchise (Prolia and Xgeva). One of its most enduring brands, rheumatoid arthritis drug Enbrel might be referred to as "mature," but Amgen grew third-quarter sales by 7% year-over-year (primarily due to price). The company also saw year-on-year gains for Xgeva (up 5%) and Prolia (up an astonishing 62%).

To hear Tony Hooper tell it, the secret to Amgen's success lies in its approach: a patients-first mission, an

insistence on commercial excellence, and the establishment of cross-functional partnerships that bring marketing into the development process sooner rather than later. "Amgen is a science-based organization—and this applies to all functions, not just

R&D," says Hooper, the company's EVP, global commercial operations, in response to e-mailed questions. "At the core we continue to focus on unmet needs in patients with serious illness."

As for its other audiences, Hooper believes that meeting and exceeding



"I have osteoporosis. I also play many roles in life, including active grandmother. I take Prolia® to help strengthen my bones."

Blythe Danner

For women with postmenopausal osteoporosis at high risk for fracture: there's Prolia®.

prolia® is different: It's 2 shots a year.

It's proven to help strengthen bones.

Prolia® is also proven to:

- Significantly reduce fractures of the spine, hip, and other bones
- Help increase bone density

Is Prolia® right for you? Ask your doctor today.

Please see Brief Summary of Medication Guide on the next page.

Ask your doctor about your bone strength and if Prolia® is right for you.

2 shots a year proven to help strengthen bones. www.prolia.com

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Prolia® is a prescription medicine used to treat osteoporosis in women after menopause who are at a high risk for fracture, meaning women who have had a fracture related to osteoporosis, or who have multiple risk factors for fracture.

Important Safety Information

Do not take Prolia® if you have low blood calcium, or are pregnant or plan to become pregnant, as Prolia® may harm your unborn baby, or an allergic to denosumab or any ingredients in Prolia®.

What is the most important information I should know about Prolia®?

If you receive Prolia®, you should not receive XGEVA®. Prolia® contains the same medicine as XGEVA® (denosumab).

Prolia® can cause serious side effects: Low blood calcium (hypocalcemia). Prolia® may lower the calcium levels in your blood. If you have low blood calcium, it may get worse during treatment. Your low blood calcium must be treated before you receive Prolia®. Take calcium and vitamin D as your doctor tells you to help prevent low blood calcium.

Serious allergic reactions have happened in people who take Prolia®. Call your doctor or go to your nearest emergency room right away if you have any symptoms of a serious allergic reaction, trouble breathing, throat tightness, swelling of your face, lips, or tongue; rash, itching, or hives.

Serious infections in your skin, lower stomach area (abdomen), bladder, or ear may happen. Inflammation of the inner lining of the heart (endocarditis) due to an infection may also happen more often in people who take Prolia®. You may need to go to the hospital for treatment.

Prolia® is a medicine that may affect your immune system. People who have weakened immune systems or take medicines that affect the immune system may have an increased risk for developing serious infections.

Skin problems such as inflammation of your skin (dermatitis), rash, and eczema have been reported. **Serious jaw bone problems (osteonecrosis)** may occur. Your doctor should examine your mouth before you start Prolia® and may tell you to see your dentist. It is important for you to practice good mouth care during treatment with Prolia®.

Unusual thigh bone fractures. Some people have developed unusual fractures in their thigh bone. Symptoms of a fracture include new or unusual pain in your hip, groin, or thigh.

Before taking Prolia®, tell your doctor if you:

- Take the medicine XGEVA® (denosumab)
- Have low blood calcium
- Cannot take daily calcium and vitamin D
- Had parathyroid or thyroid surgery (glands located in your neck)
- Have been told you have trouble absorbing minerals in your stomach or intestines (malabsorption syndrome)
- Have kidney problems or are on kidney dialysis
- Plan to have dental surgery or teeth removed
- Are pregnant or plan to become pregnant
- Are breast-feeding or plan to breast-feed

What are the possible side effects of Prolia®? It is not known if the use of Prolia® over a long period of time may cause slow healing of broken bones. The most common side effects of Prolia® are back pain, pain in your arms and legs, high cholesterol, muscle pain, and bladder infection. These are not all the possible side effects of Prolia®.

For more information, ask your doctor or pharmacist. Call your doctor for medical advice about side effects. **You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.**

2013 HIGHLIGHTS

■ Biologics boosted global sales by 11% for the first nine months of the year, with osteoporosis shot Prolia up 62% year-on-year (Q3)

■ In advance of patent expiries on anemia drugs Epogen ('13) and Aranesp ('24), secured long-term dialysis supply contracts

■ After locking up exclusivity until 2028 and assuming US selling from Pfizer in 2012, Amgen's Enbrel profit share ended in Oct., replaced by 12% royalty

■ Stood ground against biosimilars threat while joining fray with own biosimilars pipeline, including versions of Herceptin and Humira

■ Completed \$10.4B acquisition of Onyx, and built a presence in 75 countries, establishing a future growth platform

For Adults on Strong Chemotherapy
Help Boost Your Natural Defenses with Neulasta® (pegfilgrastim) After Every Chemo Cycle

What Can Happen to White Blood Cells During Strong Chemo
 Strong chemotherapy can lower the number of infection-fighting white blood cells in your body, putting you at risk of infection.

Neulasta® Helps Boost White Blood Cells
 Injected 24 hours after each cycle of chemotherapy, Neulasta® may help boost your white blood cell count and reduce your risk of infection while undergoing strong chemotherapy.

Indication
 Neulasta® is a prescription medication used to reduce the risk of infection (initially marked by fever) in patients with some tumors receiving strong chemotherapy that decreases the number of infection-fighting white blood cells. Neulasta® may not prevent all infections.

Important Safety Information
 Do not take Neulasta® if you have had an allergic reaction to Neulasta® (pegfilgrastim) or to NEUPOGEN® (Filgrastim). Tell your doctor if you have a sickle cell disorder before using Neulasta®. Ruptured spleen (including fatal cases), a serious lung problem called acute respiratory distress syndrome (ARDS), serious allergic reactions, and sickle cell crises can occur. Call your doctor or seek emergency care right away if you have: pain in the left upper stomach area or left shoulder tip pain (symptoms of an enlarged or ruptured spleen), shortness of breath, trouble breathing, or a fast rate of breathing (symptoms of ARDS); shortness of breath, wheezing, dizziness, swelling around the mouth or eyes; fast pulse, sweating, and hives (symptoms of an allergic reaction); or if you have pain or difficulty breathing (symptoms of sickle cell crises). The most common side effect you may experience is aching in the bones and muscles.

If you have any questions about this information, be sure to discuss them with your doctor. You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch or call 1-800-FDA-1088.

Please see brief summary of Important Product Information on the following page.
You may be at risk of infection throughout all of your chemotherapy treatment. Discuss infection risk factors with your healthcare provider, and ask if Neulasta® is right for you.

Help limit your co-pay
 The Neulasta FIRST STEP® Program can help eligible patients with commercial insurance cover their Neulasta doses deductibles, co-insurance, and/or co-pay requirements. Certain limitations apply.
 Log on to www.AmgenFIRSTSTEP.com or call 1-888-657-8371 for a complete list of eligibility requirements and program restrictions.

Neulasta® (pegfilgrastim)
 Learn more at www.Neulasta.com
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Amgen hiked consumer ad spend for anemia drug Neulasta last year by 9%, per Nielsen. Left: a point-of-care ad

empowered our teams across the company to put the Enbrel patient first.”

The acquisition of Onyx presented an opportunity more than it did a challenge. The deal brought under Amgen’s purview multiple myeloma drug Kyprolis, plus royalty revenue from Nexavar, Stivarga and, possibly, palbociclib. Adding these to Amgen’s existing portfolio—T-vec for melanoma, trebananib for ovarian cancer—positions the company as a potential leader in the oncology market, right alongside longtime cross-state rival Genentech. Still, Hooper doesn’t view the Onyx deal as a sign that Amgen is doubling down on oncology.

“It makes sense to focus on continuing to expand our leadership in oncology therapeutics,” he says, pointing to the company’s “robust” oncology product pipeline. “Our acquisition of Onyx is entirely consistent with our strategy of advancing innovative medicines that address serious unmet medical needs.”

Hooper doesn’t directly address the False Claims Act settlements, layoffs or other 2013 headaches, instead noting that the company’s overriding mission “cannot be fulfilled without a strong commitment at its core to compliance and ensuring that our research, operations, sales and marketing activities are done in full compliance with FDA regulations and other laws and rules.” He chooses instead to focus on what looks like a promising immediate future.

Amgen’s pipeline includes 10 late-stage programs, highlighted by AMG-145 for cholesterol and AMG-827 for psoriasis. Combined with six biosimilars set to launch starting in 2017, it’s not hard to understand Hooper’s “confidence” and “conviction” about the months and years ahead.

“We have the determination to stay out front and continue to unlock the potential of biology for patients with serious illness,” he says. “All companies will face challenges, but Amgen has a clear strategy in place to grow, innovate and bring vital medicines that provide real value to more patients—and we’re delivering on this strategy.” —Larry Dobrow

the “high expectations” of payers and regulators will ultimately lead to better patient satisfaction (and, presumably, continued strong sales). “Patients,” he says, “will not benefit from medicines they cannot access.”

Hooper has quite an interesting professional history. Prior to his career in healthcare marketing, he received law and MBA degrees from the University of South Africa and worked as a criminal attorney. That may at least partly explain why he appears to approach his role with an uncommon degree of meticulousness.

Asked about Prolia’s success in 2013, Hooper partly frames his response in the context of the category. “Post-menopausal osteoporosis is a competitive disease area, but in spite of that there is still a considerable unmet need,” he explains, noting that the challenge was different from previous ones he and his team had encountered. “Adoption would take time, [so] our primary focus was to help physicians understand the clinical profile of this therapeutic option so that they could make informed choices for their patients.”

It’s making headway: Prolia’s US value share of the osteoporosis

2013 Media spend by brand

12 months ending Sept. 30, 2013

Brand	DTC spend	Journal spend	%Total media spend**
Enbrel	\$164.6M	\$1.6M†	67.3%
Prolia	\$74.0M	—	30.0%
Xgeva	\$0.1M	\$1.7M	0.7%
Aranesp	*	\$1.5M	0.6%
Neulasta	\$0.8M	\$0.5M	0.5%
Nplate	—	\$0.1M	0.4%
Procoralan	—	\$0.02M	0.0%
Sensipar	*	—	0.0%
Vectibix	*	—	0.0%
All others	\$0.4M	\$1.5M	0.8%

*Less than \$5K;
 **DTC and journal only;
 †Amgen and Pfizer

Sources: DTC spend, Nielsen; journal spend, Kantar Media

market grew by 6 % in Q3.

Amgen’s stewardship of Enbrel—during 2012, the company assumed US field sales of the 15-year-old RA brand from Pfizer, and locked up exclusivity for it until 2028—presented a different challenge: Namely, not to mess with a good thing.

“Ultimately,” he says, “I think the transition was a success because we