



# PLIVA

*A member of the Barr Group*

## Market

PLIVA is the European headquarters of Barr Pharmaceuticals, Inc., a global specialty pharmaceutical company that operates in more than 30 countries. The Barr Group develops, manufactures and markets generic and proprietary pharmaceuticals, biopharmaceuticals and active pharmaceutical ingredients. The Barr Group markets more than 115 generic and 25 proprietary products in the U.S. and more than 1,000 products globally outside of the U.S., in the key markets of Croatia, Germany, Poland and Russia. The company's strength lies in its diversity, talented employees and their commitment to ensure high quality products resulting from superior technologies and scientific achievements, cost-competitive production, and continuous customer care.

Despite fierce competition, PLIVA holds a leading position on its domestic Croatian market.

## Achievements

### Sumamed

The discovery of azithromycin was a historical breakthrough for PLIVA and the Croatian pharmaceutical industry in general. Azithromycin, as the first azalide antibiotic, made PLIVA one of the few pharmaceutical companies to have developed its own original drug, and Croatia one of only nine countries having its own antibiotic. Thanks to its superior therapeutic properties, PLIVA's Sumamed revolutionized treatment, and has become one of the most successful global drugs. The team responsible for discovery of this international blockbuster received the "Heroes of Chemistry 2000" award in Washington.

### The Best Croatian Share of the Decade

During the 10 years following PLIVA's 1996 listing on the Zagreb Stock Exchange, the company's business operations considerably shaped developments on the Croatian capital market, raising corporate governance and transparency standards. PLIVA's entry into and its presence on the global financial market strongly contributed to the attraction of foreign capital and foreign investors in the Croatian capital market, which was rather undeveloped at that time.

## History

Established in 1921, PLIVA has over seven decades of experience in research and development. It is best known for its results in the research and development of sulfonamides, and it was one of the



first sulfonamide manufacturers in the world in the 1930s. Vladimir Prelog, a Nobel Prize winner, is one of the many scientists of outstanding talent and expertise who worked in PLIVA's Research and Development department.

Approximately 15 years ago, PLIVA was a typical local company that generated about 75 percent of its revenues from the Croatian market. Thanks to its successful privatization, expansion into new markets, and business operations in many countries, PLIVA has grown to be a strong regional company, and become one of the most recognized brands in Central and Eastern Europe.

## Product

PLIVA's rich prescription product range is divided into several therapeutic groups, the primary ones being cardiovascular, gastroenterology, anti-infectives, oncology, musculoskeletal, CNS (central

nervous system), and infusion solutions.

Included among PLIVA's wide range of OTC (over the counter) products are Andol, Plivadon and Maxflu, which acquired Superbrand status in 2008. OTC drugs are drugs whose efficacy and safety of administration have been well established.

### Andol - ALWAYS AND FOREVER

PLIVA's Andol has been a synonym for an efficient antipyretic, analgesic and anti-inflammatory drug to generations of patients. Its main ingredient is acetylsalicylic acid, a substance used for ages. The effects of salicylin, a willow bark extract, were known to the ancient Romans, who used it for elevated body temperature. As an ingredient of modern-day pharmaceutical preparations, acetylsalicylic acid has been used for more than 100 years, and its efficacy and safety have been substantiated by nearly 3,000 articles published in professional literature. There are more than 50 various





drugs containing acetylsalicylic acid as the active substance, and PLIVA's Andol is one of them.

Andol is also the only drug on the Croatian market that contains 300 mg of the buffered acetylsalicylic acid substance, contributing to a more rapid onset of action and an enhanced safety for gastric mucosa. The addition of the buffer substance accelerates dissolution and shortens the period of contact between the drug and gastric mucosa, thus possibly reducing its irritation.

It is important to differentiate between Andol (300 mg of acetylsalicylic acid) and Andol 100 (100 mg of acetylsalicylic acid), which is used exclusively for the prevention of certain cardiovascular diseases.

#### Plivadol - 30 YEARS OF SAFETY AND EFFICACY



For 30 years, Plivadol has been recognized, with good reason, as the drug of choice for various types of pain, especially headaches and migraines. Many Croatian citizens still remember its golden blister packaging. Plivadol is a combination of two analgesics: paracetamol and propyphenazone. Caffeine was also added to enhance its analgesic effects and absorption from the gastrointestinal system, while codeine, a mild opiate, additionally strengthens Plivadol's effectiveness.

#### MAXFLU – WIPES OUT THE FLU WITH A GLASS OF WATER

Maxflu is the first drug launched on the Croatian market in the form of effervescent tablets and containing three active ingredients for alleviation of flu and cold symptoms. Its advantage lies in its faster absorption. Maxflu has three main ingredients: paracetamol, which acts against pain and elevated body temperature; pseudoephedrine, which helps with a runny nose and irritating cough; and vitamin C, which meets increased vitamin C requirements during illness.

Thanks to its rapid action and efficacy, Maxflu alleviates flu symptoms and helps a patient maintain everyday activities.

#### Recent Developments

Current research activities are focused on generics, biopharmaceuticals and specialty pharmaceuticals. PLIVA has reorganized R&D activities to maximize its scientific expertise and capabilities of its R&D centers in supporting the achievement of business goals and strategies of the Barr Group. Generics are developed in three centers of excellence: Zagreb (for the U.S. market), Krakow (for the EU market),



and Brno (for the development of cytostatics).

Due to an increasing share of biopharmaceuticals on the global pharmaceutical market and PLIVA's vast experience in biotechnology, the company's focus on the development of generic biopharmaceuticals is understandable. Their marketing potential and ultra-modern production technologies which, under strictly regulated conditions yield gram or milligram quantities of products with outstanding market value, make the biogeneric arena exceptionally attractive. PLIVA and Barr partnered in the field of biogenics in 2005. Today, teams from both companies work on a number of projects in various phases of development. Barr intends to be a leader in the development of generic biopharmaceutical products in both Europe and the United States by combining Barr's regulatory and legal expertise in the U.S. with PLIVA's expertise in the development and production of biopharmaceuticals.

The largest single investment in 2007 was the construction of a multipurpose biotech facility in Savski Marof, whose completion is planned for 2009 and will fully comply with Croatian, US and European regulatory requirements.

#### Promotion

##### "Dedicated to Health"

Medicinal product marketing communications in the media and commercial channels in Europe, as well as in Croatia, are subject to stringent legal regulations. In Croatia, advertising and marketing communications relating to drugs are regulated by the Ordinance on Advertising and Notifications about Medicinal Products, Homeopathic Products and Medical Devices. In its communications with the public, as well as with physicians and pharmacists, PLIVA abides by Ordinance provisions both in the case of prescription and OTC drugs, i.e. drugs sold without prescription and the only drugs that can be advertised in the mass media.

This makes medical marketing rather unique and requires the support of medical representatives detailing PLIVA's drugs directly to hospitals, wholesalers, general practitioners, specialists and pharmacists. Because PLIVA's therapeutic groups include more drugs, branding is focused on entire groups, i.e. cardiovasculars, antibiotics or cytostatics.

PLIVA focuses an increasing number of activities towards the prevention of diseases, education of citizens, and promotion of the company brand. "Dedicated to Health," PLIVA's public health action already extending over several years, is a good example of public communications. The goal of this action has been to familiarize the public with diabetes, cardiovascular and osteoporosis risk factors, and provide advice on their prevention through the media, promotional materials, free advice offered by healthcare providers and free diagnostic procedures.

#### Brand Values

PLIVA's brand value is best reflected in its perception by physicians and other healthcare providers. For them, PLIVA is a synonym for quality, tradition, reliability and ethics in business operations. The research has also shown that PLIVA's brands



enjoy customer confidence and that they have been among the leading brands in the market in terms of image and customer recall for a number of years. This is best illustrated by the Superbrand status awarded in 2008 to three OTC products. In 2007, Maxflu also received the prestigious status of Trusted Brand. As the largest pharmaceutical company in Croatia, PLIVA has a significant responsibility not only in terms of successful performance and market supply with high quality and affordable medicines, but also in terms of a responsible relationship with all stakeholders in its environment. It is exactly this relationship toward the community, employees, professional audiences, environment and business partners that makes PLIVA and its brand so distinctive.

The results of the consultant firm Brand Finance have confirmed PLIVA to be one of the most valuable Croatian brands, ranking it tenth on the "Top 100" list and estimating the brand's value at USD 232 million.

[www.pliva.hr](http://www.pliva.hr)



#### THINGS YOU DIDN'T KNOW ABOUT...

##### PLIVA

- PLIVA is an acronym for Proizvodnja Lijekova i vakcina (production of medicines and vaccines).
- As a socially responsible company, PLIVA earmarked over 10 million kuna in 2007 for projects for the communities in which it operates.
- Based on the total annual consumption, every adult Croatian citizen uses nine Andol 300 tablets per year.
- Several thousand Croats join the actions of PLIVA Health Center throughout the year.