

# Bringing Life-Saving Malaria Treatments To Those Who Need Them Most



### Malaria infects almost 300 million people each year<sup>1</sup>

- Malaria causes more than 1 million deaths annually<sup>1</sup>
- *Plasmodium falciparum* causes the most deadly form of malaria and contributes greatly to high mortality in Sub-Saharan Africa<sup>2</sup>
- With appropriate treatment, malaria can be cured<sup>3</sup>

### Forty percent of the world's population - mostly living in the world's poorest countries - are at risk of contracting malaria<sup>2</sup>

- Most prevalent in tropical and sub-tropical areas of the world<sup>2</sup>
- 90% of malaria-related deaths occur in Africa, home to the most deadly species of mosquito that transmit the disease<sup>4</sup>
- Each year thousands of Americans travel to malaria-endemic regions on business or pleasure and this has led to a rise in cases of 'travelers malaria'
- Those most at-risk of contracting malaria are young children, women who lose their acquired immunity during pregnancy<sup>4</sup>, and people who lack immunity to the disease, such as some refugees and migrant workers moving from areas where there is little malaria
- Malaria kills over 700,000 children under age five every year – in Africa one child dies every 30 seconds.<sup>1</sup>
- Malaria is Africa's leading cause of mortality for children under five and the cause of an estimated 10,000 maternal deaths each<sup>5,6</sup>

### Coartem® is a breakthrough in the treatment of multi-drug resistant malaria and the first artemisinin-based combination therapy (ACT) added to the WHO's Essential Medicines list<sup>7</sup>

- Highly-effective three-day malaria treatment with cure rates of over 96%, even in areas of multi-drug resistance<sup>8,9,10</sup>
- Indicated for the treatment of acute, uncomplicated *P. falciparum* malaria, the most dangerous form of the disease<sup>8</sup>
- Only WHO pre-qualified, fixed-dose artemisinin-based combination therapy (ACT) that combines artemether, a derivative of artemisinin which is the extraction product of the sweet wormwood plant *Artemisia annua*, with lumefantrine
- Provides rapid resolution of fever and achieves fast parasite clearance with a median time ranged from 24-36 hours<sup>8</sup>

### Novartis provides Coartem treatment without profit to those most in need

- Along with its Chinese partners, Novartis pioneered the effective treatment of malaria with the introduction of Coartem, the first WHO pre-qualified fixed-dose artemisinin-based combination therapy (ACT)<sup>8</sup>
- To help alleviate the tremendous problem of treatment access, Novartis has taken the lead by providing Coartem treatments for public sector use in Africa without profit
- To date, Novartis has provided more than 215 million Coartem treatments, which have helped save an estimated 550,000 lives – mostly children

### Novartis is working closely with partners in both China and Africa to ensure an increased supply of artemisinin

- Together with our Chinese partners, Novartis has completed one of the largest and fastest scale-ups the industry has seen: the 74 million treatments delivered in 2008

# Coartem<sup>®</sup> Fact Sheet

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- A significant technology transfer from Novartis to our Chinese partners has enabled development and production of the drug in line with good manufacturing practices
- Though the Chinese remain central to the supply of artemisinin, Novartis has also formed a partnership with East African Botanicals to dramatically increase agricultural cultivation of *Artemisia annua* in Kenya, Tanzania and Uganda and extraction of artemisinin
- Production of Coartem requires a 14-month lead-time that includes planting, harvesting, extraction of artemisinin, tableting, packaging and, finally, shipment of the product. The active ingredients are produced by the Chinese companies KPC and ZMC in new chemical production facilities—the finished product is produced by Novartis in China and the United States

## About Novartis

Novartis AG provides healthcare solutions that address the evolving needs of patients and societies. Focused solely on healthcare, Novartis offers a diversified portfolio to best meet these needs: innovative medicines, cost-saving generic pharmaceuticals, preventive vaccines, diagnostic tools and consumer health products. Novartis is the only company with leading positions in these areas. In 2007, the Group's continuing operations (excluding divestments in 2007) achieved net sales of USD 38.1 billion and net income of USD 6.5 billion. Approximately USD 6.4 billion was invested in R&D activities throughout the Group. Headquartered in Basel, Switzerland, Novartis Group companies employ approximately 97,000 full-time associates and operate in over 140 countries around the world. For more information, please visit <http://www.novartis.com>.

Novartis was named a Super Sector Leader by the Dow Jones Sustainability Index (DJSI) in 2007. In the same year, 66 million patients around the world benefited from Novartis programs valued at USD 937 million. These initiatives range from drug donation and research programs to combat neglected diseases like malaria, tuberculosis and leprosy in developing nations, to patient assistance programs that help cancer patients receive the most innovative and effective treatments available. For further information, please consult <http://www.novartis.com>.

## References

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