UNMC’s discovery may combat malaria

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A report released recently in the science journal Nature found that in 2002, more than a half a billion people worldwide—almost double previous estimates—were infected with the deadliest form of malaria. While this disease each year kills at least one million children and drains billions of dollars from already impoverished countries, the report’s new grim statistics, at first glance, would seem to have no direct connection to Nebraska.

Yet Nebraska is playing an important role in waging the fight against the disease. That’s because it is the home of Jonathan Vennerstrom, a University of Nebraska Medical Center researcher who led a team of scientists to the discovery of a potentially powerful and affordable drug for combating malaria. The drug is now being tested in clinical trials in patients in Thailand.

The compound, known by its abbreviated name of “Oz,” has been hailed as possibly one of the biggest breakthroughs in malaria-fighting medicines of our generation, given the problems it has shown to defeat the disease and the fact that it should be relatively inexpensive to produce. The journaling news that the most deadly form of malaria is even more widespread than previously documented will likely intensify the already considerable interest in the drug’s success.

The breakthrough by Vennerstrom, supported by Medicines for Malaria Venture, is one of two bright spots that have recently emerged from the gloom of malaria. The other focus for optimism came last fall, when results from a large clinical trial in Mozambique showed that a new malaria vaccine protected a significant percentage of children against infection and illness—reducing life-threatening illness by nearly 60 percent. This trial demonstrated convincingly for the first time that a malaria vaccine to protect children is achievable. It was supported by the Malaria Vaccine Initiative, a program of the U.S.-based, nonprofit organization PATH.

And if the United States willingly assumes a leadership role, these bright spots can serve as beacons that will guide us to victory over one of the worst epidemics to ever plague humankind.

America is a nation rich not only in financial wealth but in scientific talent, industry know-how and development experience. The United States must help accomplish what our own public health officials did when they’d this notion of a killer that could and should be vanquished.

The Oz drug and the potential new malaria vaccine offer promising evidence that a disease that has tormented humanity for thousands of years is vulnerable to defeat for the first time in Africa, where it has its strongest foothold.

In addition, the fact that one of the breakthroughs emerged from a clinical trial in Mozambique and the other from a laboratory in Omaha shows that rapid progress is possible when resources from around the world are marshalled to the cause of conquering malaria.

The Bill & Melinda Gates Foundation has taken on a large share of the financial cost of research and development for neglected diseases like malaria, and this has fueled progress in innovation of new antimalarial drugs and vaccines.

But this enlightened philanthropy should not obscure the comparatively small global investment spent on malaria-related innovation. This investment is so tiny compared with that for diseases affecting the industrialized world that it is dwarfed by the costs of launching one major U.S. drug.

Instead, such private giving should encourage more aggressive support from governments and multinational donors—support that is more consistent with malaria’s toll.

Governments of rich nations such as ours must not make this a low priority simply because it is less visible than other diseases and disorders.

Today, it is money more than science that limits surability to provide life-saving drugs and vaccines to defeat malaria. The United States now must push and encourage other wealthy nations in providing resources to help push a half already far downfield across the goal line.