74 UW-Madison Research Yields the Most Widely Prescribed Blood Thinner

University of Wisconsin-Madison

Coumadin, and its counterpart, Warfarin, together represent one of the first technology transfer success stories emanating from the University of Wisconsin-Madison's Wisconsin Alumni Research Foundation (WARF), UW-Madison's patenting and licensing arm, which has supported the university's scientific research since its establishment in 1925.

The story begins in 1933, when a farmer from Deer Park, Wis., paid an unexpected visit to Professor Karl Paul Link's laboratory in UW-Madison's School of Agriculture. The farmer's cows had been dying, and he suspected it had something to do with the sweet clover hay the cows had been eating. For that reason, the farmer had brought samples of the clover feed and container of non-coagulated blood from one of his cows to Link's lab.

In 1941, after years of research, Link and his team isolated the anticoagulant in the clover feed. The researchers found that it was highly toxic for rodents and eventually patented it under the name of Warfarin (named after WARF), for use as a rat poison. It ultimately became one of the most widely used rat poisons in the world.

Further research on Warfarin yielded several related compounds, which also were patented and used in medical practice. Coumadin®, a blood thinner for treating heart patients and preventing blood clotting, was among these compounds. In the years since, Coumadin has become the most widely prescribed blood thinner in the world.

Photos courtesy of the Wisconsin Alumni Research Foundation