Snapping Turtles

By: Casey Corbett

Bee, scorpion and snake venom may hold cancer cure

Traditional Chinese medicine has used scorpion venom to treat several diseases including cancer for many years. In recent years, researchers have tested the potential of scorpion venom in treating cancer. Scientists at Washington University in St. Louis have already tested a synthesized version of the scorpion venom to fight cancer cells without harming healthy cells. If successful, this natural agent found in venom could become the basis for a whole legion of cancer medications.

Dr. Samuel Wickline, an associate professor of radiology at Washington University in St. Louis helped develop this technique. "Since it's synthetic, the properties in venom that destroy cancer cells can be used in a targeted manner," Wickline said. "You can think of the venom as a molecular substrate that home in on cancer cells while passing healthy cells and is attracted to only the cancer cells. In other words, it's so tightly packed into nanoparticles that it can't injure healthy cells."

The work is in very early stages, but has shown success. Wickline is hopeful that this technique will one day become a standard of care. "It's a promising approach to cancer treatment," he said. "But obviously more research is needed before it can become a reality."

Alternative doctors in Cuba have used scorpion venom to treat several diseases including cancer for many years. In recent years, researchers have tested the potential of scorpion venom in treating cancer. Scientists at Washington University in St. Louis have already tested a synthesized version of the scorpion venom to fight cancer cells without harming healthy cells. If successful, this natural agent found in venom could become the basis for a whole legion of cancer medications.

Dr. Samuel Wickline, an associate professor of radiology at Washington University in St. Louis helped develop this technique. "Since it's synthetic, the properties in venom that destroy cancer cells can be used in a targeted manner," Wickline said. "You can think of the venom as a molecular substrate that home in on cancer cells while passing healthy cells and is attracted to only the cancer cells. In other words, it's so tightly packed into nanoparticles that it can't injure healthy cells."

The work is in very early stages, but has shown success. Wickline is hopeful that this technique will one day become a standard of care. "It's a promising approach to cancer treatment," he said. "But obviously more research is needed before it can become a reality."