



Marjorie Mazel Hecht

Donald Roberts (at podium) and Richard Tren. *The Excellent Powder* demolishes the familiar scare stories about DDT: DDT did not wipe out robins, eagles, or peregrine falcons; it has never been shown to cause human harm; and it works even if mosquitoes are resistant to DDT.

**MILLIONS HAVE DIED BECAUSE OF DDT BAN, NEW BOOK DOCUMENTS**

Dr. Donald Roberts, the entomologist whose malaria research confirmed that the pesticide DDT works chiefly by repelling mosquitoes, launched his long-awaited book in a Washington, D.C. press conference April 21: *The Excellent Powder: DDT’s Political and Scientific History*. He and co-author Richard Tren, an economist from South Africa and chairman of Africa Fighting Malaria, summarized the book’s main points for an audience that included several distinguished malaria researchers.

“Millions have died” and poor people have suffered “severe and grievous harm” as a result of the anti-scientific attacks on DDT, Roberts said. He emphasized three points: we have to hold the anti-DDT groups accountable for this harm; we have to rescind the World Health Organization resolution that stopped DDT use in 1997; and we have to remove authority over public health malaria decisions from organizations that prioritize “environmental” protection over protecting the public’s health.

When asked by *21st Century* to elaborate on why environmentalists went after DDT, Roberts stressed that the motivation was population control. “Studies were done that showed that where DDT was introduced for malaria control, the effects were dramatic as malaria death rates declined, and survival went up. . . . There was great alarm that the malaria control programs using DDT were contributing far too much population growth, and that this was a bad thing.”

An excerpt from *The Excellent Powder* appears on p. 40, and a book review on p. 52.

**CENSUS OF MARINE LIFE INVENTORIES HARD-TO-SEE SPECIES**

More than 2,000 scientists from 80+ nations have inventoried and studied the hardest-to-see sea species: tiny microbes, zooplankton, larvae, and burrowers in the sea bed. This is a vast survey. The Census of Marine Life involves microbial cells from 1,200 sites worldwide, which collectively weigh the equivalent of 240 billion African elephants—that’s 35 elephants of marine microbes per person. Marine microbes are 50 to 90 percent of all ocean biomass, but until recent technological techniques, like high-throughput DNA sequencing, this world was largely hidden from our view.

More information, and spectacular photos (including the one on this issue’s cover), can be found at <http://www.coml.org/embargo/hardtosee>.

**OBAMA COMMISSION INCLUDES EUTHANASIA ADVOCATES**

Among the members appointed to the Presidential Commission for the Study of Bioethical Issues is the infamous Peter Singer, the Princeton University professor from Australia, who called for the murder of infants whose disabilities were a burden to their elders, and who in his animal-rights advocacy attacked the “prejudice” of placing any special value on human life. The chair of the Commission in Amy Gutman, now the president of the University of Pennsylvania, who hired Singer when she was at Princeton, and who collaborated with him on publishing *The Lives of Animals*. More details can be found at <http://www.larouchepac.com/node/14122>.



VAEC

Vietnam’s Dalat Nuclear Research Center, which began operations in 1963. Vietnam has set the ambitious goal of supplying 15-20 percent of its power from nuclear by 2030.

**VIETNAM PICKS RUSSIA FOR FIRST NUCLEAR PLANT**

Vietnam Atomic Energy Institute Director Vuong Huu Tan announced that Russia was chosen as the foreign partner in Vietnam’s first nuclear power plant. Tan said that Russia had

also agreed to help Vietnam deal with the nuclear waste. Vietnam plans two 1,000-megawatt pressurized water reactors, with the first plant starting construction in 2014, to come on line in 2020.

An article and interview on Vietnam’s nuclear program, appear in the Winter 2009-2010 issue of *21st Century*.

## MELANIN NANOPARTICLES CAN PROTECT PATIENTS IN RADIATION THERAPY

The laboratories of Ekaterina Dadachova and Arturo Casadevall at the Albert Einstein School of Medicine in New York have used melanin-coated silica nanoparticles injected into mice to observe the protective effects on bone marrow (the usual dose-limiting tissue for radiation exposure), after the mice have been treated with external gamma radiation or internal radioimmunotherapy with rhenium-188. This research, "Melanin-Covered Nanoparticles for Protection of Bone Marrow During Radiation Therapy of Cancer," was published in the *International Journal for Radiation Oncology, Biology, and Physics*, April 26.

Melanin-coated nanoparticles under 100 nanometers diameter successfully made their way to the bone marrow at 0.3 percent of injected dose per gram, where, even at that low uptake, they had a protective effect. This was measured by a much shallower dip and a faster rebound in the numbers of white blood cells and platelets on days 3-10, after a radiation dose much higher than therapeutic limits in humans. The melanin is hypothesized to intercept high-energy recoil electrons and dissipate their energy so as to minimize secondary ionization events, which cause free radical generation. The melanin coat is also thought to scavenge free radicals that do form. With the addition of chemicals such as pluronic acid, known to increase bone marrow uptake of nanoparticles, a much greater effect might be expected. Sparing bone marrow cells could allow higher-dose targeted treatments of such cancers as non-Hodgkin's lymphoma, where bone marrow suppression now limits the dose to sub-optimal levels for cancer eradication.

Colonies of melanized fungi are known to inhabit the walls of the Chernobyl reactor, and thrive in cooling ponds of functioning nuclear reactors, where the melanin in their cell walls protects the fungi from ionizing radiation that would kill other organisms. This research explores whether humans could tap into that protective effect to allow more effective treatment of cancer or to allow humans to better survive cosmic ray exposure during space travel.

For the work of Dadachova et al. on targeted radioisotope therapy, see "Radioisotopes: The Medical Lifesavers That Congress is Suppressing" in the Winter 2009-2010 issue.

## IN MEMORIAM: GOV. WALTER HICKEL, CHAMPION OF 'BIG PROJECTS'

Former Alaska governor Walter J. "Wally" Hickel died at age 90 on May 7 in Anchorage. Throughout his 70 years in business, military service, and public office, Hickel championed physical economic development, with what he came to call his "Alaska approach," with the principle that "there is no legitimate reason for poverty on this Earth."

Here are excerpts from the obituary issued by Hickel's office:

"Ever a big thinker, Hickel predicted that the Arctic would become an opportunity for the world. To advance that goal in 1992, he helped found The Northern Forum, and in 1995 established the Institute of the North, an Anchorage-based think-tank dedicated to Alaska strategic issues, including caring for and using the 'commons'—or commonly owned lands and resources—to help the people in the North...."

"Hickel sought a transportation corridor to link the East and West across the North. He worked for years to support Russian leaders who favored opening the Northern Sea Route to world commerce...."

"As a believer that big projects are a symbol of a civilization, he promoted a tunnel beneath the Bering Strait to connect the United States and Russia and make possible 'a railroad around the world.' His concept for a water pipeline to transport Alaska's abundant water resources to California received both attention and ridicule in the 1960s and 1990s, and he insisted that it would one-day become a reality. As a member of an advisory committee to NASA, he advanced 'big projects' to support exploration of Mars and settlement of the Moon. He was still talking about these projects as of last month...."



Courtesy of Ekaterina Dadachova



*Immunofluorescent image of melanin nanoparticles. Top left shows the image of the particle seen through the light microscope; below left shows the image of the same melanin particle through a fluorescent microscope. The red color on the right comes from the melanin-binding antibody attached to a red fluorescent dye. Below, a tunneling electron micron microscope image of the nanoparticles.*



FORUM International

*The late Walter Hickel told a Moscow conference on the Bering Strait Tunnel Project in 2007: "I believe that if we bring Russia and America together it will change the world." Hickel's speech and a report on the conference can be found in the Spring-Summer 2007 21st Century.*