The MS2 virus is a bacteriophage – it infects the common bacteria and is used in the lab for molecular assembly and drug discovery. He is the director of one of 10 NIH-funded centers for research assessing the elevated risk of disease from uranium mine and mill waste on the Navajo Nation. Her research focuses on understanding the immune response of patients who have been exposed to uranium. Some studies have been genetic evaluations that can identify people who may be at risk for disease, and research is needed to follow these individuals to see if they develop cancer. We think there is an elevated risk of cancer in uranium-exposed communities, and we are working to determine if there is a link between exposure and cancer development. We are also investigating the role of genetics in determining sensitivity to uranium exposure. Such studies are important for understanding the potential for uranium to cause cancer and for developing strategies to protect individuals who are exposed to uranium.

VLP is engineered to enclose a mix of chemotherapy drugs, protein toxins, or RNA to deliver antitumor agents directly to cancer cells. Modified with the appropriate peptides (many of which remain to be discovered), VLPs have the potential to be targeted to specific cell populations in vivo, including those that inhibit tumor growth. Recent evidence points in this direction. “We think the ‘crucial centimeter’ around breast cancer tumors actually consists of genetically unstable cells,” said Cheryl Willman, MD, the UNM Cancer Center’s director and CEO, quoted in a special feature on adolescent and young adult (AYA) cancer in the Bulletin, August 4-6, 2012. “The goal is to deliver a combination of chemotherapy drugs directly to these cells to inhibit their growth and potentially cure young adults with breast cancer.”

The “crucial centimeter” around breast tumors

Genes, age and childhood cancer

Going viral to fight cancer

Research-Treatment

A $35,000 grant from the Mexican government is good news for researchers at the University of New Mexico (UNM) Cancer Center. The grant, which is for one of nursing’s most prestigious honors. This fall, Dr. Damron was named a Fellow of the American Academy of Nursing, an international body of 1,600 nursing leaders. She was one of just two 2011 Fellows from New Mexico. Fellows represent the nation’s top nurse researchers, policymakers, scholars, executives, educators and practitioners. An oncology nursing expert at the UNM School of Nursing.

Dr. Larry Sklar and Johnnye Lewis each recognized for outstanding research

Dr. Barbara Damon induced into American Academy of Nursing

New symbol of strength

Dr. Barbara Damon induced into American Academy of Nursing

Outreach

Now, researchers at the UNM Cancer Center and Sandia National Labs are using the virus’s protein coat, or outer shell, to deliver anticancer drugs using the virus’s natural viral infection and delivery system. A ‘protocell’ is a new term for this viral nanoparticle, including the groundbreaking silica-based "protocell" developed by UNM-Sandia researchers earlier this year, as we celebrate the 40th anniversary of the National Cancer Act. That landmark law accelerated scientific progress against cancer and strengthened the potential need for slightly larger surgical margins to prevent recurrence. Whether these genetically unstable cells are present in patients with breast cancer but not in their unaffected relatives, or if they are present in unaffected relatives of breast cancer patients but not in patients with the disease, is not clear. The importance of these findings is that they suggest that patients with familial breast cancer may have a unique genetic profile that can be targeted with new treatments.

The "crucial centimeter" around breast tumors

UNM Cancer Center scientists have found that non-cancerous tissue one centimeter – but not three or five centimeters – away from breast tumor tissue contains levels of the enzyme telomerase similar to that of the tumor itself. Telomerase is found in more than 90 percent of breast tumors, but the enzyme is also present in normal, non-cancerous tissue. This finding suggests that tumors may not need to grow to a certain size before they can become clinically detectable. Whether these genetically unstable cells are present in patients with breast cancer but not in their unaffected relatives, or if they are present in unaffected relatives of breast cancer patients but not in patients with the disease, is not clear. The importance of these findings is that they suggest that patients with familial breast cancer may have a unique genetic profile that can be targeted with new treatments.

The crucial centimeter around breast tumors

A $35,000 grant from the Mexican government is good news for researchers at the University of New Mexico (UNM) Cancer Center. The grant, which is for one of nursing's most prestigious honors. This fall, Dr. Damron was named a Fellow of the American Academy of Nursing, an international body of 1,600 nursing leaders. She was one of just two 2011 Fellows from New Mexico. Fellows represent the nation's top nurse researchers, policymakers, scholars, executives, educators and practitioners. An oncology nursing expert at the UNM School of Nursing.

Dr. Larry Sklar and Johnnye Lewis each recognized for outstanding research

Dr. Barbara Damon induced into American Academy of Nursing

Outreach

Now, researchers at the UNM Cancer Center and Sandia National Labs are using the virus’s protein coat, or outer shell, to deliver anticancer drugs using the virus’s natural viral infection and delivery system. A ‘protocell’ is a new term for this viral nanoparticle, including the groundbreaking silica-based “protocell” developed by UNM-Sandia researchers earlier this year.

The "crucial centimeter" around breast tumors

UNM Cancer Center scientists have found that non-cancerous tissue one centimeter – but not three or five centimeters – away from breast tumor tissue contains levels of the enzyme telomerase similar to that of the tumor itself. Telomerase is found in more than 90 percent of breast tumors, but the enzyme is also present in normal, non-cancerous tissue. This finding suggests that tumors may not need to grow to a certain size before they can become clinically detectable. Whether these genetically unstable cells are present in patients with breast cancer but not in their unaffected relatives, or if they are present in unaffected relatives of breast cancer patients but not in patients with the disease, is not clear. The importance of these findings is that they suggest that patients with familial breast cancer may have a unique genetic profile that can be targeted with new treatments.

The "crucial centimeter" around breast tumors

A $35,000 grant from the Mexican government is good news for researchers at the University of New Mexico (UNM) Cancer Center. The grant, which is for one of nursing's most prestigious honors. This fall, Dr. Damron was named a Fellow of the American Academy of Nursing, an international body of 1,600 nursing leaders. She was one of just two 2011 Fellows from New Mexico. Fellows represent the nation's top nurse researchers, policymakers, scholars, executives, educators and practitioners. An oncology nursing expert at the UNM School of Nursing.

Dr. Larry Sklar and Johnnye Lewis each recognized for outstanding research

Dr. Barbara Damon induced into American Academy of Nursing

Outreach

Now, researchers at the UNM Cancer Center and Sandia National Labs are using the virus’s protein coat, or outer shell, to deliver anticancer drugs using the virus’s natural viral infection and delivery system. A ‘protocell’ is a new term for this viral nanoparticle, including the groundbreaking silica-based “protocell” developed by UNM-Sandia researchers earlier this year.

The "crucial centimeter" around breast tumors

UNM Cancer Center scientists have found that non-cancerous tissue one centimeter – but not three or five centimeters – away from breast tumor tissue contains levels of the enzyme telomerase similar to that of the tumor itself. Telomerase is found in more than 90 percent of breast tumors, but the enzyme is also present in normal, non-cancerous tissue. This finding suggests that tumors may not need to grow to a certain size before they can become clinically detectable. Whether these genetically unstable cells are present in patients with breast cancer but not in their unaffected relatives, or if they are present in unaffected relatives of breast cancer patients but not in patients with the disease, is not clear. The importance of these findings is that they suggest that patients with familial breast cancer may have a unique genetic profile that can be targeted with new treatments.

The "crucial centimeter" around breast tumors

A $35,000 grant from the Mexican government is good news for researchers at the University of New Mexico (UNM) Cancer Center. The grant, which is for one of nursing's most prestigious honors. This fall, Dr. Damron was named a Fellow of the American Academy of Nursing, an international body of 1,600 nursing leaders. She was one of just two 2011 Fellows from New Mexico. Fellows represent the nation's top nurse researchers, policymakers, scholars, executives, educators and practitioners. An oncology nursing expert at the UNM School of Nursing.

Dr. Larry Sklar and Johnnye Lewis each recognized for outstanding research

Dr. Barbara Damon induced into American Academy of Nursing

Outreach

Now, researchers at the UNM Cancer Center and Sandia National Labs are using the virus’s protein coat, or outer shell, to deliver anticancer drugs using the virus’s natural viral infection and delivery system. A ‘protocell’ is a new term for this viral nanoparticle, including the groundbreaking silica-based “protocell” developed by UNM-Sandia researchers earlier this year.

The "crucial centimeter" around breast tumors

UNM Cancer Center scientists have found that non-cancerous tissue one centimeter – but not three or five centimeters – away from breast tumor tissue contains levels of the enzyme telomerase similar to that of the tumor itself. Telomerase is found in more than 90 percent of breast tumors, but the enzyme is also present in normal, non-cancerous tissue. This finding suggests that tumors may not need to grow to a certain size before they can become clinically detectable. Whether these genetically unstable cells are present in patients with breast cancer but not in their unaffected relatives, or if they are present in unaffected relatives of breast cancer patients but not in patients with the disease, is not clear. The importance of these findings is that they suggest that patients with familial breast cancer may have a unique genetic profile that can be targeted with new treatments.

The "crucial centimeter" around breast tumors

A $35,000 grant from the Mexican government is good news for researchers at the University of New Mexico (UNM) Cancer Center. The grant, which is for one of nursing's most prestigious honors. This fall, Dr. Damron was named a Fellow of the American Academy of Nursing, an international body of 1,600 nursing leaders. She was one of just two 2011 Fellows from New Mexico. Fellows represent the nation's top nurse researchers, policymakers, scholars, executives, educators and practitioners. An oncology nursing expert at the UNM School of Nursing.