April | 4 | 2022

Dakota Diagnostic

North Dakota Society of Radiologic Technologists

"NO VOICE IS TOO SOFT WHEN THAT VOICE SPEAKS FOR OTHERS."- JANNA CACHOLA

CT Techs at Altru in Grand Forks, ND

Radiology Highlight

Computed Tomography

Computed Tomography (or CT) gives a unique view of the human body using cross-sectional images of the bones, blood vessels, and soft tissues in our body. CT Tech at Sanford Health in Bismarck, Whitney Hoon, says she enjoys the diversity that every day brings. "The variety of patients that come in make each experience unique. We scan so many different patients with different stories; from cancer, trauma, or stroke, to patients just coming in for a checkup," Whitney explained. If you enjoy a fast paced environment, thinking on your toes, and using advanced imaging technology, CT could be the modality for you!

CT Techs at Sanford in Fargo, ND

https://www.forbes.com/sites/andrebourque/2019/03/25/how-hemp-is-giving-renewed-life-to-americas-tobacco-farmers/?sh=7fd796534726

DID YOU KNOW?

Smokers receive a radiation dose that is equivalent to about 300 chest x-rays annually (depending on the exact amount smoked) due to the radioactive isotope Polonium-210 contained in tobacco smoke that originates from the fertilizer ingredients used in farming tobacco.

Source: https://news.cancerresearchuk.org/2008/08/29/radioactive-polonium-in-cigarette-smoke/

Chernobyl

https://www.businessinsider.com/wildlife-near-nuclear-reactor-chernobyl-2016-4

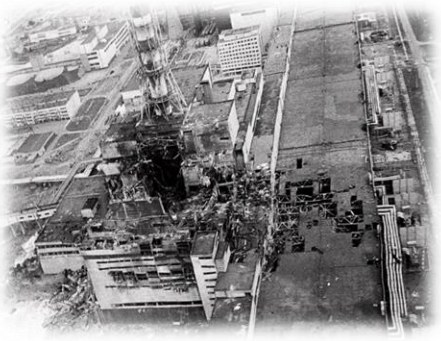
"There was nothing sane about Chernobyl. What happened there, what happened after, even the good we did, all of it...all of it, madness."

-Valery Legasov, 'Chernobyl'

The devastating story of Chernobyl has taught the world of radiology more about the effects of radiation: instantly and over a long period. A series of unfortunate decisions and events, driven by the need for power and money, led to the eruption of the reactor.

Underqualified engineers had just minutes to read instructions on how to carry out a safety test on the reactor. The reactor was then pushed to the brink due to decisions that were made during the test. However, the engineers knew that they had a backup button that would instantly shut the reactor down in times of dire need. What they did not account for was the Soviet's desire for money, and the cheap safety measures that they elected to buy. When the backup button was pushed, instead of shutting down the reactor, the energy increased until the inevitable explosion occurred.

While the occupational radiation limit is 50mSV per year, the level of radiation near the reactor core after the explosion was estimated to be 300SV per hour. This level is fatal after only a minute of exposure.



It was hard to obtain an accurate measurement of radiation at the time because the working dosimeters at the plant read up to only 30mSV/hr and were reading "off-scale".

However, only 30mSV/hr was the measurement that was reported to the upper management because of the limits of the dosimeters. The upper management was not concerned with this level of radiation. Little did they know the actual amount of deadly radiation that was instantly penetrating the skin of thousands of citizens.

The firefighters that were brought to the hospital for treatment instantly started showing symptoms of Acute Radiation Syndrome (ARS). Their clothes and equipment were stripped and thrown in the basement of the hospital. To this day, the pile of contaminated remnants are still radioactive.

In the years following this disaster, thousands of people developed thyroid issues and different types of cancers due to the radiation received. The area of Chernobyl is considered an "exclusion zone" due to the radioactivity still present.

Due to the sheer amount of radiation that was exposed to thousands of people, a lot of research has been conducted to help us learn more about the effects of radiation, Acute Radiation Syndrome, and how disasters such as this can be completely avoided.

Source: http://www.chernobylgallery.com/chernobyl-disaster/radiation-levels/

RUSSIAN TAKEOVER

Chernobyl Today

https://www.newsy.com/stories/chernobyl-radiation-rise-following-russian-takeover/

Over 50 staff members were held hostage by Russians at the power plant and forced to work for weeks on end. Many employees were collapsing from exhaustion as their shifts continued on. Eventually they were rotated out due to the safety of the plant.

2022 Annual Conference Recap

Pictured left to right: Abby Berg, Amanda Grocott, Dawn McCarty, Allie Reisenauer, Carla Barrios, Kiera Schweitzberger, Cori Brothers

Check out the new 2022 NDSRT Board! Welcome to the new President Elect Kiera Schweitzberger!

Congrats to our Clara Sanger Scholarship Winner Jaylee Messmer!

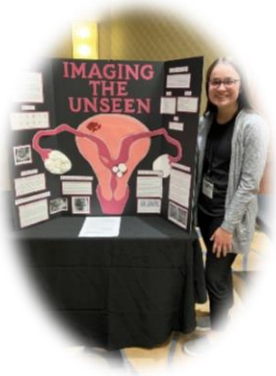
Essay Winners

First Place- Jaylee Messmer

Second Place- Samantha Morgan

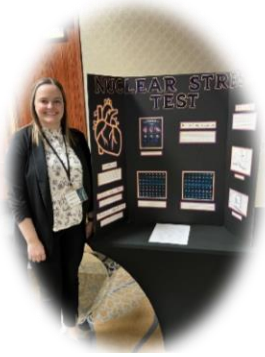
Third Place- Abigail McGee

Exhibit Winners



First Place- Maggie Geitzen

Second Place- Alan Aquino Velasco



Third Place- Jaylee Messmer

2022 Annual Conference Recap

Pictured left to right: Dawn McCarty, Lori Kiefert, Abby Berg, Tammy Romesha, Amanda Grocott, Carla Barrios, Allie Reisenauer, Cori Brothers

2021 NDSRT Board

Thank you to our sponsors, speakers, and everyone who attended for making this a great conference! Mark your calendars for our 2023 conference in Fargo, ND on April 22nd!

A Life Member Interview

Mary Thompson

A Boomer born and raised on a Red River Valley potato farm, Mary learned just what hard work was. Growing up as the middle child of 5, she graduated school in Barnesville, Minnesota as an honor student. She then attended radiologic technology training at St. Luke's Hospitals in Fargo (MeritCare-Sanford) and Minnesota State University-Moorhead. She also achieved both Nuclear Medicine and Medical Sonography certifications through on the job experience.

Mary has an extensive and very impressive list of career achievements. She participated in the commercial launch for sestimibi, or Cardiolite. This newly branded product grew and changed nuclear cardiology. She also joined the launch for the generic sestimibi. During her x-ray training, the first CT scanner (EMI) was installed in the Neuropsychiatric Institute at St. Lukes (TNI) which led to the many innovations to come. Mary also had the distinct honor to be the business operations manager for the first MRI scanner in North Dakota. Half of Mary's career was in clinical medical imaging and the other half was in medical imaging sales and marketing.

"I've had the individual pleasure to work with some of our regional greats in the industry such as Warren Freier, Vaughn Moore, Brent Colby, Jill Beithon, Dale Olson, and so many more that are reading this that are saving lives every day, right Allan?" ,Mary responded, "Thinking back, there's been some really great teaching moments and also some great teachers." Mary reflects on the associates that we have lost, "I think back to the days of Clara Sanger, Dorothy Jenkins, Sister Renae, Hub Grandlund, Dr. Stan Thompson, Dr. Neil Dixon, Dr. John Manesis, Dr. Lester Shook, and Dr. Bob Shook… Some who were industry leaders back when I was an evolving photon."

Through her many years of experience, Mary has worked with equipment from nuclear rectilinear scanners to today's sophisticated PET imaging; from x-ray tomography to CAT scans; from older ionic contrast medias to the safer, low- and iso-osmolar compounds used today; and from x-ray film to digital image capture technology. She has seen the radiopharmaceutical production growth ranging from nuclear reactors to particle accelerators for the different variety of radiopharmaceuticals that are produced and used today. "I look back and see the technological changes over the last 50 years and think it's an amazing, continual learning experience," Mary states, "Computers are such a major contributor to the technology just as in our everyday lives. What would Roentgen think? How blown away would Madame Curie be of the Trilinear Chart of Nuclides? What would the likes of Tesla, Bloch, Purcell, and Damadian reflect upon medical MRI technology of today? Dare we dream what it will be tomorrow?"

Since retiring, Mary's adventures have taken her into the non-medical related world of Grand Jury duty, working the election polls, and training to become a CERT member (community emergency response team).
"I have always believed being a member of our professional societies, such as the NDSRT, is additive to our overall professionalism. The peer relationships and educational offerings are wonderful builders in how we perform and grow our technology as well as how our medical colleagues view and appreciate us," Mary says, "Our societies like the NDSRT are constant contributors of education and support of the technologies of medical imaging".

NDSRT would like to thank Mary telling us about her amazing experiences and sharing her words with us. Thanks for all that you have done for the world of Radiology!

NDSRT BOARD

Chair of the Board

Allie Reisenauer

Intermediate Chair

Amanda Grocott

President

Carla Barrios

President Elect

Kiera Schweitzberger

Vice President

Dawn McCarty

Treasurer

Cori Brothers

Secretary

Abigail Berg

Adviser

Tammy Romesha

Education Committee

Tammy Romesha

Amanda Grocott

Allie Reisenauer

Conference Planning Committee

Amanda Grocott

Kiera Schweitzberger

Newsletter by: Macy Markel
Facebook admin & Member at Large: Nicole Hoskin
Student Delegates: Hannah Fischer, Karra Hanson

Contact the Board at northdakotasrt@gmail.com or visit our new website at www.northdakotasrt.com

Follow us on Facebook here!