

# One Mission One Campus

## Cancer Therapy Reimagined™

### How does Radionuclide Therapy work?

Radiopharmaceuticals suited for therapeutic purposes are those that strongly bind with the tumor.

They transport targeted doses of radiation directly to the tumor and its metastases, thereby sparing normal healthy tissue.

The molecule that carries the radiation to the tumor is determined by its affinity to the tumor's target structures, such as antigens or receptors.

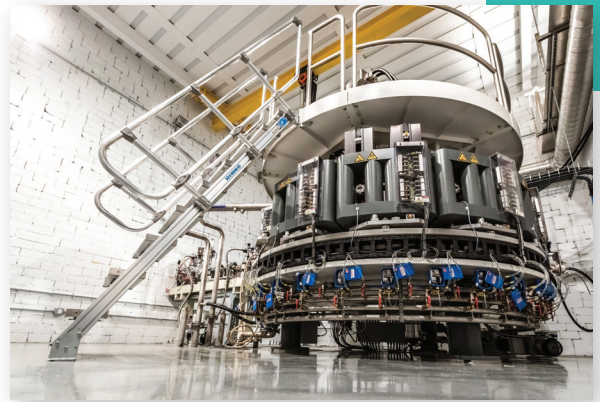
The ionizing radiation emitted by radionuclides linked to the carrier kills cancer cells by damaging their DNA, causing the tumors to shrink.

An ideal radiopharmaceutical for therapeutic purposes should:

- Reach all the cells of the malignant tumors wherever they are localized
- Act exclusively in the cells of malignant tumors
- Destroy malignant tumor cells with great efficiency
- Deliver targeted radiation with high specificity, sparing healthy tissue

### Environmentally Preferable

- Electron accelerator–produced Radium–225 and generator production of non–carrier added (n.c.a.) Actinium–225
  - Allow for commercial–scale production quantities
- High quality n.c.a. Ac–225
  - Avoids Ac–227 (21.8–year half–life) waste concerns that result from other production methods
- No long–lived reactor waste



Providing Patients Global Access to Game–Changing Radiopharmaceuticals  
[www.northstarm.com](http://www.northstarm.com) | 1–844–438–6659

## Access

- Northstar's commercial-scale production of these rare radioisotopes will help mitigate supply shortages
- Multiple Ac-225 generators on hand at all times
- Dedicated logistics team experienced in domestic and international shipments
- Established and responsive to the specifics of shipping radioactive isotopes
  - Ability to adjust to adverse weather
- Centrally located manufacturing facility in the Midwest
  - 5 airports within 90 minutes, including Chicago O'Hare
- Availability maximized, downtime minimized

## Production Capabilities

- Vertically integrated
  - Isotope supply/procurement
  - CDMO/CMO Services
- Designed for future growth
  - 55-acre campus with adjacent power substation
  - Site prepped for 260,000 sq ft of facilities



Dedicated 30,000 sq ft Ac-225 Production facility

## Expertise and Innovation

- Established Regulatory and Quality Professionals
- Successful previous and ongoing experience with the FDA and local regulatory agencies:
  - Product Approvals > Inspections > Licensing
- Awards: recognized worldwide as innovators by institutions and organizations
  - Frost & Sullivan 2020 Visionary Innovation Leadership Award (Oct 2020)
  - US Department of Energy's Outstanding Achievement Award (Sept 2018)
  - WCI (World Council of Isotopes): recognizes outstanding contributions to isotopes and their uses to benefit mankind (Feb 2020)
  - ABC of Wisconsin's Projects of Distinction: Excellence in Construction Gold Award for NorthStar's Isotope Processing facility (March 2021)
  - US Environmental Protection Agency Green Challenge Award Nominee

## Infrastructure

- Well established
  - Headquarters and operations in Beloit, WI
  - Engineering, Analytical & Product Testing, and Research and Development in Madison, WI
  - 250+ employees and growing, with high-tech expertise
- State-of-the-art technology designed to meet growing radiotherapeutic demand
- Designed with a focus on redundancy, reliability and scalable expansion



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For more updates, follow us on 

Expected to be commercially available in late 2024.  
NorthStar's Ac-225 is not yet approved by the FDA.

