Dartmouth Cancer Center

Dartmouth Health | Dartmouth Geisel School of Medicine

Cancer Center Compendium

A Comprehensive Review of Dartmouth Cancer Center Innovations

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Our Cancer Center, a partnership with Dartmouth Health and the Geisel School of Medicine, has the responsibility and the mission to put an end to cancer. We provide critical services to our patients across a five-state catchment area and are advancing medical discoveries that impact the world.

Dartmouth Health

Dartmouth GEISEL SCHOOL OF MEDICINE

Dear Colleagues,

We are pleased to share the latest issue of the Dartmouth Cancer Center Compendium, a collection of articles showcasing new advances, inspiring stories, and ongoing progress at Dartmouth Cancer Center. At a time when innovation, collaboration, and precision continue to redefine healthcare, these contributions reflect the remarkable work being done every day across our cancer center. Together, these articles highlight how our teams are transforming patient outcomes, reshaping clinical practice, and reaffirming our commitment to providing exceptional cancer care.

Technological innovation in medicine is creating new possibilities for patients like never before. Several of the featured articles explore how Dartmouth Cancer Center is uniting compassionate care with cutting-edge technology, allowing patients to travel less, recover faster, and experience care that prioritizes their well-being as whole individuals, not just as patients. From robotic thoracic surgeries that enhance precision and shorten recovery time to programs that foster emotional and psychological resilience, our focus remains on delivering comprehensive, patient-centered care.

This issue also shines a light on our efforts to expand access to oncology research and clinical trials. With over 240 active clinical trials, we are offering patients more opportunities to benefit from promising new therapies and to contribute to discoveries that will shape the future of cancer treatment. These stories exemplify how research and patient care are deeply intertwined, each driving the other forward.

In 2025, we expanded our clinical presence in Manchester, NH, with the addition of a new Radiation Oncology unit. We continue to build on that progress by bringing multidisciplinary cancer care to southern New Hampshire through specialized oncology teams at Dartmouth Cancer Center Manchester. By developing expert teams that collaborate across disciplines, we are deepening our ties to the community and ensuring that more patients have access to world-class treatment without leaving their support systems behind.

Together, these articles remind us that progress in cancer care is not only measured in scientific discovery, but also in human impact: the restored lives, renewed hopes, and shared commitments that define our work. I invite you to explore these thoughtful contributions, each representing another step forward in our collective pursuit of excellence, knowledge, and compassionate care.

Sincerely,

Konstantin H. Dragnev, MD
Interim Director, Dartmouth Cancer Center

Cancer Compendium - Spring 2026

On the cover: Dana Ferrari-Light, MD, and David Finley, MD, operate the da Vinci SP surgical robot, creating new possibilities in thoracic surgery.

Dartmouth Cancer Center Leadership

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BY THE NUMBERS
Over 50 Years of Care, Research and Hope

>200
Cancer Specialists

17
Interdisciplinary, Cancer-Specific Patient-Centered Programs

>82,000
Annual Patient Appointments

2025 Stats

8,800
New Patients

>30,000
Radiation Procedures

>36,000
Infusions

Since its founding over 50 years ago,
Dartmouth Cancer Center remains the only National Cancer Institute (NCI)-designated Comprehensive Cancer Center in the United States that's not located in an urban hub.

We are the only cancer center to be fully integrated within a world-class liberal arts college, medical school, engineering school, business school, graduate school, and academic health system—a truly joint venture between Dartmouth College and Dartmouth Health, and a top priority for both institutions.

Research and Innovation

168 senior scientific investigators attract **$50 million** annually in research grants and contracts.

Ranked 6th in entrepreneurship among cancer centers nationally.

Pioneer in tumor genomic sequencing **>5,000 tumor exomes sequenced.**

One of only 32 NCI National Clinical Trials Network Lead Academic Participating Sites with **165 open trials.**

National leader in cancer prevention research, especially regarding e-cigarettes and environmental contaminants.

More than 229 research projects within four programs

- Cancer Signaling Genomes and Networks
- Cancer Population Sciences
- Translational Engineering in Cancer
- Immunology and Cancer Immunotherapy

Leader in **engineering new technologies** for precision cancer surgery and radiation therapy.

Renowned in immunotherapy research Launched Medarex (developer of Opdivo and Yervoy) and recently discovered both a next-generation immune checkpoint inhibitor and new technology for universal, "off-the-shelf" anti-cancer CAR T cells.

Dartmouth Cancer Center locations: Keene | Lebanon | Manchester | Nashua | Bennington | St. Johnsbury

Leveling Up Thoracic Cancer Care

with Single-Port Robotic Surgeries

Patients across New England facing cancers in the chest or lung now have access to the newest generation of minimally invasive surgery with the addition of the da Vinci Single-Port (SP) robotic system here at Dartmouth Cancer Center (DCC).

What is single-port robotic surgery?

Unlike traditional multi-port robotic surgery, which uses several tiny incisions, the SP robotic system allows surgeons to work through just one small opening. Through that single entry point, three fully articulating instruments and a camera are deployed with remarkable precision and flexibility.

The result is the same or improved surgical accuracy with the potential for:

Less postoperative pain

Fewer complications

Shorter hospital stays

Quicker return to daily life.

The recent U.S. Food and Drug Administration's (FDA) approval of the SP platform for thoracic procedures represents a meaningful step forward in comfort, recovery, and access to world-class surgical care, close to home.

Dana M. Ferrari-Light, DO, MPH, and David J. Finley, MD, robotically trained surgeons in DCC's Comprehensive Thoracic Oncology Program (CTOP), began using the SP platform for thoracic cases in October 2025, building on a strong history of robotic excellence at DCC. With these milestones, Dartmouth Health becomes the only health system in New Hampshire, Vermont, and Maine to offer single-port thoracic surgery.

Current thoracic applications at DCC include lung and chest lymph node resections and removal of mediastinal tumors (tumors in the chest space). Surgeons in other specialties, including the colorectal cancer program and the head and neck cancer program, are also expanding their use of the SP platform.

The da Vinci SP robot.

World-class expertise
behind the technology

Although FDA approval of the SP platform for thoracic surgeries is relatively new, DCC's robotic expertise in this area is not. Finley, a leader in robotic thoracic surgery for nearly two decades, brings his experience in performing more than 1,500 multi-port robotic procedures to the SP rollout.

Even with proven expertise, the introduction of each new robotic platform follows a rigorous and highly structured training pathway.

"It's a well-thought-out approach to make sure there's no question we know exactly what we're doing," says Finley.

Ferrari-Light also brings robotic expertise to the CTOP team. She is one of about 10 surgeons in the U.S.—and only the second female—to be credentialed across Intuitive's entire platform.

"I hope it inspires other people to beat me," she says with a smile. "Truly—I want more women who are aspiring thoracic surgeons to see what's possible in this challenging but extremely rewarding field."

Advanced care
without navigating the city

The CTOP thoracic surgery team is hands-down among the most experienced in New England. Only a select few other surgeons in New England currently perform SP thoracic procedures.

"Our robotics program is far and away one of the largest, best, and most robust programs in the country," says Finley. "We're doing really difficult and technically challenging cases here. And we're doing them well. Adding the single-port robotic system will keep allowing us to advance the care of our patients and continue innovating at the forefront of how thoracic malignancies are treated."

But technological capability is only part of what sets the CTOP program apart.

"Our program is incredibly comprehensive," says Ferrari-Light. "When patients come here, they're seeing surgeons, medical oncologists, and radiation oncologists—as well as other specialists and cancer support staff—who all work closely together. Nothing is siloed. We plan care with rural access in mind because our patients often travel for hours from western Massachusetts, the coast of Maine, all of New Hampshire and Vermont, and upstate New York for their visits."

Finley adds, "There aren't very many programs in the country that can rival what we do. From a surgical expertise standpoint, from a technological standpoint, and from a multidisciplinary standpoint, we have world-class capabilities across the board in thoracic surgery and thoracic oncology."

"There aren't very many programs in the country that can rival what we do."

– David J. Finley, MD

Read more about thoracic cancer care at DH

David Finley, MD (left), and Dana Ferrari-Light, MD (right), robotically trained surgeons in DCC's Comprehensive Thoracic Oncology Program (CTOP).

Enhancing Access

to Oncology Clinical Trials and Community Cancer Care

Charles Gaulin, MD, and patient.

Dartmouth Cancer Center researchers are participating in national multicenter studies and developing new care pathways that expand treatment options for rural populations. DCC is providing patients across New England with access to some of the most advanced cellular therapies and clinical trials, close to home.

>80%

"More than 80 percent of patients receive their cancer care at community hospitals across the U.S."

Leading-Edge Clinical Trials

NCI-designated Dartmouth Cancer Center offers a robust portfolio of leading-edge clinical trials—including several for cellular therapy led by fellowship-trained hematologist-oncologist Charles J. Gaulin, MD, who specializes in lymphoma, myeloma, and cellular therapies.

One of our top accruing studies is the SWOG S2308 study, which compares follicular lymphoma immunotherapy treatment options. Gaulin's research also includes several oral targeted agent studies, such as an Alliance for Clinical Trials in Oncology (A052101) trial offered at the cancer center's St. Johnsbury location.

The team is involved in research to explore the efficacy of novel therapeutic combinations, including CAR T-cell therapy or bispecific T-cell engagers paired with other agents, to optimize treatment response. According to Gaulin, the goal is to improve treatment efficacy for the nearly 50 percent of patients who do not experience a durable response after CAR T-cell therapy.

Developing Real-World Pathways for Treatment Delivery

Through participation in leading-edge clinical trials, Gaulin hopes to expand rural access to advanced treatments and develop care pathways that allow for convenient treatment delivery while prioritizing patient safety and outcomes.

"When I joined the team in 2024, one of my goals was to improve access to clinical trials for our rural population," said Gaulin. "With more than 80 percent of patients receiving their cancer care at community hospitals across the U.S., Dartmouth Health is in a unique position to make significant contributions to clinical trials by developing treatments that can be administered anywhere—including in the community, on an outpatient basis, or at satellite locations—and not just at urban, academic medical centers."

According to Gaulin, developing real-world solutions that standardize and streamline treatment delivery will improve patient access across the region—and potentially, in rural areas throughout the country.

In 2025, Dartmouth Cancer Center completed its first outpatient CAR T-cell therapy treatment, becoming one of only a few centers in the northeast to offer CAR T-cell therapy on an outpatient basis. The team is also expanding community-based access to other therapies, including bi-specific T cell engagers, offering them at DCC member locations.

Gaulin notes that although treatment is initiated at our main campus, we can often transition care to multiple DCC locations after the toxicity period is over with the appropriate safety nets in place, which means our patients from rural areas don't need to be tied to our Lebanon campus for the duration of their care.

Southern NH Expansion Takes Multidisciplinary Cancer Care Model

'ON *the* ROAD'

As part of its expansion into southern New Hampshire, the Dartmouth Cancer Center is establishing disease-specific multidisciplinary teams of providers to deliver collaborative, specialized care for people with breast, thoracic, and gastrointestinal (GI) cancer diagnoses in Manchester, Nashua and surrounding communities.

"Our goal is to provide our patients in southern New Hampshire with access to state-of-the-art outpatient care and resources locally, with a strong connection to the full range of services and advanced care available at Dartmouth Cancer Center in Lebanon when needed," said Christi Ann Hayes, MD, Medical Director for Dartmouth Cancer Center in Manchester and Nashua. "As a result, we're rethinking our oncology care model and engaging in strategic recruiting to bring comprehensive care closer to where our patients live and work."

Strategic Recruiting Staffs Multidisciplinary Teams

According to Hayes, the multidisciplinary breast cancer program is already up and running. With a breast medical oncologist, breast surgeon and advanced practice provider (APP) already on board, the team plans to add a breast radiation oncologist in early 2026.

The GI cancer program will follow a similar model, with a GI oncologist joining the team in early summer 2026. The team also plans to recruit a pancreatic specialist, colorectal surgeon, and APP.

A specialized thoracic oncologist, thoracic surgeon, and other pulmonology experts will staff the thoracic oncology program. The team is also developing their multi-specialty neuro-oncology clinic that allows patients to meet with a neuro-oncologist, neuro-radiologist and neurosurgeon during a single convenient appointment.

Strong Connections Support Comprehensive Care

To maintain strong ties to Dartmouth Cancer Center in Lebanon, providers from each site will participate in a joint multidisciplinary tumor board to discuss each case and make collaborative treatment recommendations. Patients will also have access to medical genetics, palliative care, and mental health, social work and supportive services through Dartmouth Cancer Center Lebanon, as well as telehealth appointments with providers.

"Our multidisciplinary cancer teams have been delivering high-quality, patient-centered care in Lebanon for years, and with this level of specialized cancer care not previously available in southern New Hampshire, **we're excited to take our model on the road."**

– Christi Ann Hayes, MD
Medical Director for Dartmouth Cancer Center in Manchester and Nashua

Dartmouth Cancer Center brings specialty care to its Manchester location, serving patients from Manchester, Nashua, and beyond.

Redefining What's Possible
IN BRAIN CANCER CARE

Dartmouth Cancer Center neurosurgical oncologist and Director of the Brain Tumor Treatment Program Linton T. Evans, MD, is as devoted to caring for patients with brain tumors as he is to redefining what is possible for them.

A changing landscape of brain tumor care

Treatment options for brain metastases—tumors that spread to the brain from primary cancers—have improved dramatically over the past two decades. Evans says the focus has shifted from merely extending survival to preserving quality of life over potentially many years.

Unfortunately, the standard of care for glioblastoma—the most aggressive form of primary brain cancer—hasn't changed much in 20 years. "But with newer technologies in the operating room, we're better able to maximize the amount of tumor we can remove safely while being much more aware of functional outcomes," Evans says. "We also have some exciting clinical trials on the horizon."

Evans is proud of the growth and depth of DCC's Brain Tumor Treatment Program. "We have all the elements you'd see at major urban centers, just on a smaller scale," he says. The multidisciplinary team includes neuro-oncologists, radiation oncologists, neurosurgeons, neuropathologists, and a dedicated neuropsychologist who studies neurocognitive outcomes in rural patients.

Radiation at the Time of Surgery

In 2023, Evans treated the first patient at DCC with GammaTile, a postage-stamp-sized device embedded with radiation seeds that can be placed directly into the brain cavity at the time of tumor surgery. Known as "brachytherapy," the tile delivers highly localized radiation immediately after tumor removal. The benefit? Sparing healthy tissue and reducing the need for weeks of travel for radiation treatments—especially valuable for patients in rural northern New England.

DCC has now treated 15 patients with GammaTile—more than Evans initially expected. Having just received designation as a GammaTile Center of Excellence, Evans says,

"It's exciting to see this become a real option for patients who otherwise face major travel burdens."

SMARTER, SAFER SURGERIES

Through unique collaborations, clinicians and researchers routinely connect their expertise to augment technology with the hope that their work will make brain tumor surgeries safer and more precise.

One example is the CONVIVO confocal laser microscope system, which lets neurosurgeons see cellular details of brain tissue in real time during surgery. While usually used for gliomas, Evans and pathologist George Zanazzi, MD, PhD, are preparing to publish their results from using the laser microscope in skull-base tumors, where achieving clear margins is critical.

Evans is also spearheading a first-in-human clinical trial concept that could extend the reach of laser interstitial thermal therapy (LITT), a minimally invasive method that involves inserting a laser fiber into the tumor and using heat delivery to destroy tumor cells. While effective, LITT has limits: heat doesn't spread far, and nearby critical brain structures can be damaged. To overcome this, Evans is testing ThermoDox, an encapsulated chemotherapy that only activates at tumor sites when heated.

Through DCC's bench-to-bedside program, Evans and researcher Jack Hoopes, DVM, PhD, secured funding to test how accurately they can predict where heat—and a drug that has never been used in the brain before—goes. While Hoopes has recently passed away, a loss deeply felt among the DCC research community, Evans will continue what they started, with hopes to finish preclinical testing, submit an application to the FDA, and launch the trial within a year.

Evans is also launching a fluorescence-guided surgery clinical trial for patients with newly diagnosed glioblastoma. The trial will use a novel Dartmouth-designed fluorescent dye that sharpens the contrast between tumor and healthy brain, helping surgeons remove more cancer while preserving function.

"It's very exciting moving a molecule that was developed at Dartmouth from preclinical conception to patients," he says. As important as the dye itself, Evans notes, is developing the systems to visualize it effectively—a task well suited to Dartmouth engineers' tremendous expertise.

"It's very exciting moving a molecule that was developed at Dartmouth from preclinical conception to patients."

– Linton T. Evans, MD

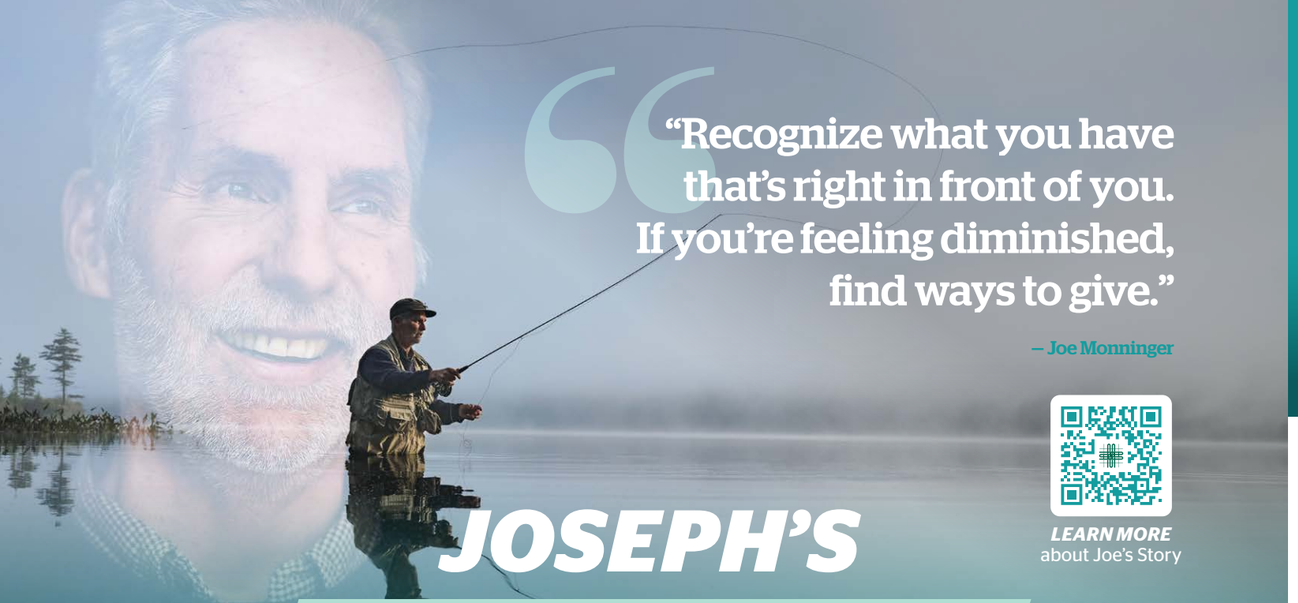
Read more about Brain Cancer Care at DH

ENVISIONING A FUTURE

As technology improves, Evans appreciates having more nuanced conversations with patients and the expanding ability to tailor treatment plans to individual needs and preferences. **"With the technology we have, we can treat patients the right way for them,"** he says.

He envisions a future where improved technology and surgical precision, smarter drug delivery, and minimally invasive techniques give patients more time and better quality of life.

Linton Evans, MD



> **"Recognize what you have that's right in front of you. If you're feeling diminished, find ways to give."**
>
> — Joe Monninger

LEARN MORE about Joe's Story

JOSEPH'S WAY FORWARD

Joe Monninger, 71, didn't expect Stage 4 lung cancer to be part of his life. A resident of Warren, New Hampshire, he had spent decades traveling, teaching, and publishing books and articles. He planned to build a home to retire on Maine's coast. But after visiting the doctor for shortness of breath, just three days into his retirement, he learned he had lung cancer.

Lung cancer is the leading cause of cancer-related deaths globally, according to the World Health Organization. There is currently no cure. For Joe, surgery would not be possible.

A Line of Support

Elliot Backer, MD, a pulmonologist at Dartmouth Cancer Center, was the first doctor to sit down with Joe and his partner Susan and walk through his CT scan, showing them what was going on. This simple action was "something I admire to this day," Joe said.

Soon after, they met Konstantin Dragnev, MD, an oncologist at DCC. "While he has great empathy for you, he also is not going to baby you and not talk down to you," Joe said. "He won my heart when he said: 'From now on, I'm your doctor.'"

It was around that time that Joe, his son Justin, and Susan learned that he could only have until Labor Day.

An Unlikely Match

One summer afternoon, Joe received a call with Dragnev's new plans for treatment.

"There's no debate about this," Joe recalls the oncologist saying. "This is what we're going to do."

In this call, Joe learned that he had a rare genetic mutation that made him eligible for a drug called Osimertinib that aims to slow cancer's progress. Dragnev never gave a timeline, but he did give Joe something far more valuable—years he never thought he'd have.

Recalled to Life

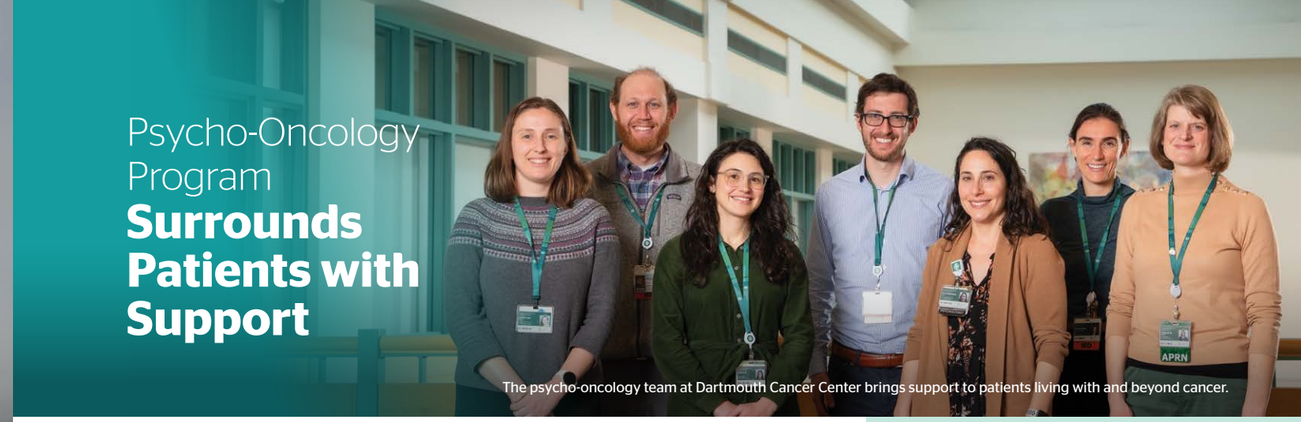
"Suddenly, I was recalled to life," he said. In three years, Joe had traveled, gone fly-fishing, published a memoir, and told his story.

"For others facing a similar journey, remember to keep laughing," Joe said.

"Recognize what you have that's right in front of you. If you're feeling diminished, find ways to give," he said.

"There are people who have a difficult life," Joe said. "They've never even had the good days that I've had. So, in that way, I'm lucky."

Editor's Note: A few months after this interview, Justin informed us that his father passed away on January 1, 2025. Justin, Susan, and Juliet, his dog, were by his side. Through the care provided at DCC, Joe was able to outlive his initial diagnosis and continue to enjoy the people and places he loved.



Psycho-Oncology Program **Surrounds Patients with Support**

The psycho-oncology team at Dartmouth Cancer Center brings support to patients living with and beyond cancer.

Coping with cancer comes with mental health challenges—from the moment of diagnosis through treatment and into survivorship, the psycho-oncology experts at Dartmouth Cancer Center provide comprehensive support for patients.

With a referral from a DCC oncology provider, patients can access individual talk therapy with oncology-trained psychologists, medication management with psychiatrists, and neuropsychology care to manage the impact of cancer treatments on thinking, memory, concentration and other cognitive functions.

"The early phases of a cancer diagnosis can be so challenging, and patients may experience a range of feelings," said Sivan Rotenberg, PhD, MA, psycho-oncologist at DCC. "We help our patients navigate the early post-diagnosis period, but we also provide support during treatment and into survivorship—when some patients on maintenance therapy are learning how to live well with a long-term, incurable cancer diagnosis."

Expanding Services and Sites with Grant Funding

With funding from a $1 million Prouty grant, the psycho-oncology program aims to expand its services across all Dartmouth Cancer Center sites.

"In addition to expanding to new sites to bring our services into more communities, we hope to add a patient navigator and diversify our services to include couples and family therapy," said Rotenberg.

One unique aspect of the psycho-oncology program is the collaboration among a diverse group of providers.

"Our team works closely with nurse navigators, social workers, chaplains, physicians and other providers to support patients," said Rotenberg, who participates in tumor board and team meetings with other oncology and psycho-oncology program experts. "When we look at patients as whole beings and work together to address their physical, social, spiritual, and mental health needs, we can amplify the impact of the comprehensive medical and psychological care we provide."

Telehealth Supports Enhanced Access to Mental Health Care

The team has also expanded its use of telehealth services, conducting virtual sessions with patients at their convenience, reducing the need for them to travel to Lebanon for psycho-oncology visits.

"Telehealth has been a huge benefit, especially for patients who live far from Lebanon, are trying to work during treatment, are immunocompromised, or are trying to balance family obligations with their cancer treatment," said Rotenberg.

"The medical and psychological care we provide is on par with any large cancer center in the country. Our goal is to help everyone access the cancer care they need without their mental health getting in the way."

Sivan Rotenberg, PhD, MA, psycho-oncologist at DCC.

Dartmouth Cancer Center

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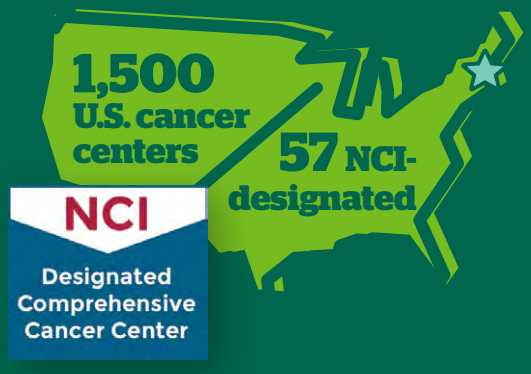
Dana Ferrari-Light, MD, uses the da Vinci Single Port robot.

Dartmouth Cancer Center
NCI Comprehensive Cancer Center Designation

There are approximately 1,500 cancer centers in the U.S. Only 57 are National Cancer Institute (NCI) Comprehensive Cancer Centers. Dartmouth Cancer Center is proud to be one of the longest-standing NCI-designated centers. DCC provides the same level of cancer care and research as a major urban Comprehensive Cancer Center, but within a small-town, compassionate community.