

- RICHARD J. GRAY:** From the very beginning, the planning of the Arizona campus of the Mayo Clinic Cancer Center was around the experience of the patient. We literally walked through the cancer experience with our patients to see what their experience was and hear from them what would make it better.
- RUBEN A. MESA:** Efficient cancer care with the patient at the center has really been the main focus of the design and the implementation.
- DENISE M. MILLSTINE:** We went to the Mayo Clinic Living with Cancer symposiums for three years and asked our patients, what are you doing and what would you like us to do for you? And that's how we built our program.
- SAMEER R. KEOLE:** We can see the patient between all the different disciplines, surgery, medical oncology, and radiation oncology, in one day, and we can have the pathology and the radiology reviewed often that same day as well.
- MESA:** A patient can be in their consultation room, and we're of the view that the various specialists that they need to see will come to visit them in that room so that it can be done in a seamless fashion.
- KEOLE:** So literally the patient doesn't move-- doesn't have to move from that room for three hours. Everybody-- all the expertise of the Mayo Clinic comes to the patient.
- MESA:** A patient really needs to understand and be comfortable with both their disease, the information around their disease as well as the treatment plan. We have very generous amounts of time really allocated for each patient so that patients' full questions can be answered and that communication can occur in a very unhurried fashion.
- KEOLE:** PET imaging is an incredibly useful tool in cancer care. Different isotopes give different value, but if they have a short half life, the only way you can inject them into a patient is if you have a cyclotron on site. We have a cyclotron on site.
- MESA:** An accurate diagnosis in staging of a cancer is essential for treatment to be effective. At Mayo Clinic, we have some of the finest sub-specialists in radiology and pathology so that the cancer images on the most advanced machines available, as well as the most technologically advanced biopsies and pathology, are able to be brought together for some of the most

accurate and effective diagnosis and staging of cancer an individual can find really anywhere in the world.

**GRAY:** The Mayo Clinic Cancer Center is a national comprehensive cancer center. And as such, we work in close concert with our colleagues across the country, specifically in Rochester, Minnesota, and Jacksonville, Florida. We work in collaboration to develop the best possible treatment programs. Each individual patient may get reviewed by physicians at any or all of those sites.

**KEOLE:** There's an army behind this, and there's army behind the patients. And that it may not just be what you see right around you here in Arizona because again we can leverage up to Rochester. We can leverage to Florida.

**MESA:** There are many types of cancers, and many of these are rare. Here no cancer is rare to Mayo Clinic.

**GRAY:** One of our focuses that Mayo Clinic is making sure that cancer care is the least intrusive in the patients' lives that it needs to be while still being the most effective. That can range everywhere from surgical care, where we can do less invasive procedures so that patients recover faster, to some of the other therapies such as radiation therapy. We've shown that for patients that undergo breast cancer or radiation treatment here at Mayo Clinic, they are able to finish in a shorter period of time than it takes at most other centers while still having the best possible outcomes.

**KEOLE:** You don't want to over-treat, and I'll give you an example in breast cancer. There's very good data that shows three weeks of radiation is just as effective as six weeks of radiation. In fact, in many ways this three weeks of radiation is superior to the longer course. Our standard here in more than 80% of the patients get the shorter course of radiation.

**GRAY:** For many cancer sites, the treatments we're able to prescribe for our patients can be tailored in such a way that their treatments do take less time and have less recovery than maybe would be possible in another situation.

**KEOLE:** So, for instance, we have protocols in prostate cancer that shorten the duration of treatment from nine weeks down to five weeks, and we have a different protocol that actually looks at shortening the treatment down to one week. Women with breast cancer, especially left-sided breast cancer, we can decrease the dose to the heart by 90%, and we can decrease the dose

to the lungs by more than 70% when we use proton beam. Proton beam therapy is a very unique type of radiation available at only a few centers the United States. The proton beam can spare normal healthy tissues, including those in the brain by anywhere from 70 to 99% versus our best x-ray techniques.

**MILLSTINE:**

We not only have the best experts and the newest technology to attack cancer. We also treat the whole person using integrative medicine to heal the body, quiet the mind, and restore the spirit. Our massage therapists have been trained for years in oncology massage to be able to provide helpful massage in a safe manner, which is critical when you're actively being treated. We also have yoga providers who've undergone extensive training for working with patients with cancer to deal with their resilience in a different way.

**GRAY:**

One of our founders said, no one is too big to work in isolation. And what we do is work as a team, and at Mayo Clinic Cancer Center, that team includes important aspects of holistic care through our integrative medicine physicians and through many other partners that look after the full wellness of all of our patients.