Precision Interdisciplinary Equipment

- Digital PET-CT Scanner
- PET-MRI Scanner
- Laser Technology for Treating Cataracts
- Cardiac CT Scanner
- Fluorescence-Activated Cell Sorter (FACS)
- Liquid Chromatography–Mass Spectrometry (LC-MS) System
- Full-Body 3D Imaging System (EOS)
- Other equipment (not detailed here)

The Medical Center prides itself on pushing the frontier of medicine ever forward, harnessing sophisticated equipment to diagnose disease, treat patients, follow up on patient progress and focus on illness prevention.

The best practice in collaborative diagnostics, treatment and research

The medical teams use diagnostic technologies, independently and combined, to get to know each patient thoroughly – at all biological levels. The insights gained from these advanced imaging, laboratory and genetics systems and techniques give clinical professionals knowledge of the patient’s exact diagnosis so they can build a targeted treatment or prevention plan.

Treatment devices help physicians pinpoint specific conditions and sites, reach areas inaccessible to the human hand and minimize impact on non-affected areas so as to expedite a patient’s return to functioning. When put to work in the hands of the Medical Center’s many research teams, these diagnostic and treatment systems can light the way to breakthroughs in various disciplines of medicine.

Returning patients to health and improving quality of life

Patients are benefiting from these innovations, which pave the way for safer, less invasive, more precise, low-radiation approaches that eliminate agonizingly long wait times and fear-inducing unknowns. But, in order to empower its clinical and research teams to practice the type of progressive medicine expected in this new generation of patient-centric care, the Medical Center needs to give its talented teams access to these benchmark tools.

The key to true personalized patient care

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A Digital PET-CT Scanner

Functional medical imaging for highly precise disease insight

The human element in patient-centered medicine lies in the ability to reassure patients that care team members know as much as possible about their condition and are doing all that they can to treat it. The Medical Center is working to honor this commitment with state-of-the-art diagnostic systems and tailored treatments.

For cancer, cardiovascular diseases, infections and inflammations, as well as degenerative, neurological and brain-based conditions, the digital PET-CT has become the gold standard for diagnosing disease and making treatment decisions, as well as for evaluating disease progression and treatment success.

A non-invasive glimpse into the body

The hybrid PET-CT enables clinicians to view biological processes at the cellular and molecular levels. The fusion of PET functional data and CT morphology data gives the medical team a more complete understanding of disease processes. The system’s tracers – trackable radioactive material introduced into the body – evaluate tissue function and structure, as well as irregular tissue activity. Armed with this information, clinicians can tailor treatment to each patient.

Important benefits to patient diagnostics, treatment and follow-up

This new digital technology has greatly enhanced 3D resolution, image quality and accuracy, together with upgraded change-detection sensitivity. The system will reduce patient exposure to radiation without compromising lesion detectability. This feature is particularly advantageous for children and young adults and for patients with non-oncologic conditions. By opening the door to new tracers and other features, this machine will help the Medical Center continue to perfect care and medical research – as a hallmark of precision medicine.

Your gift of this digital PET-CT and the growing portfolio of tracers it supports will enable us to improve diagnosis and treatment for thousands of patients every year.

7,000 procedures per year
One of the first 10 centers worldwide to implement PET-CT
Best for lung and bone diseases (mainly cancer)
Every year, thousands of patients with neurological, cardiovascular, bone marrow and oncology diseases put their faith in Medical Center diagnosticians and clinical professionals to provide a targeted treatment plan based on rigorous diagnosis.

Synchronized and accurate scanning for extended applications
The PET-MRI system will give the Medical Center team a level of diagnostic detail unavailable in the scanners it has today. The hybrid capabilities analyze both the structure of patient’s tissues and how they function, and differentiate between normal and abnormal tissue function. These details help physicians make precise diagnoses so that patients can be prescribed the optimal intervention.

Toward safer testing and personalized care
The PET-MRI’s high-contrast, high-resolution images provide pinpoint accuracy. This diagnostic confidence, together with the ability to detect minute tissue changes over time help physicians make better and quicker therapeutic decisions and adjust the patient’s intervention based on treatment response. Combining both PET and MRI tests in one device saves equipment and professional resource time. While the PET-MRI and PET-CT both scan for disease, the two technologies complement one other. Each scanner has its strengths and each works best with certain tissues and conditions. The radiation exposure from the PET-MRI is dramatically lower than that of the PET-CT, making the PET-MRI ideal for children and patients who must undergo frequent scans. The PET-MRI opens up a new world of precision medicine. It can expand possibilities for patient diagnostics, early detection and follow-up, and empower medical and scientific teams across multiple disciplines to forge ahead with cutting-edge research.

Ultra-precise, non-invasive imaging that promotes individualized, targeted treatment
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