

Starrco & Angstrom Technology Partner to Deliver First-of-its-Kind Radiopharmaceutical Cleanroom

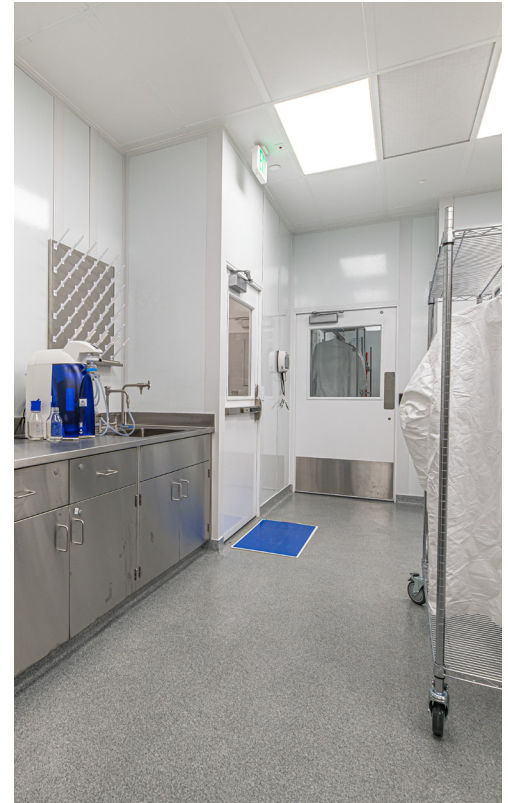
Radiopharmaceutical Cleanroom Case Study



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As a modular wall system manufacturer, Starrco has a unique ability to develop high-quality components that satisfy even the most stringent environmental requirements. This case study will examine how Starrco partnered with our dealer, Angstrom Technology, to deliver a turnkey cleanroom solution for the Michigan State University College of Human Medicine and Bold Advanced Medical Future (BAMF) Health.

From developing custom-sized components to delivering the high-quality modular components that matched the client's need for ISO 7 & 8 cleanroom standards, this project showcases our ability to deliver modular solutions for even the most difficult applications.



About Michigan State University

As one of the top research universities in the world, Michigan State University (MSU) has worked to advance the common good in uncommon ways since 1853. MSU has the top-ranked nuclear physics graduate program and hosts the Facility for Rare Isotope Beams, which is one of the largest nuclear particle accelerators in the world. One of the pillars of MSU's strategic plan is to bring health, hope, and healing to those living in the state of Michigan and beyond by focusing on efforts to transform health through innovation.

MSU furthered that strategic plan thanks to a recent donation from Doug Meijer and the Meijer Family Foundation. As part of this gift, MSU was able to purchase two cyclotrons, 18 hot cells, and world-class imaging equipment, all of which would be installed as part of a first-of-its-kind radiopharmaceutical cleanroom in the Grand Rapids Innovation Park. MSU partnered with BAMF Health, a key innovator in the industry, to drive the most value from the gift through the development of lease agreements, as well as an operational agreement for the radiopharmacy space and the equipment within it.

About BAMF Health

MSU's partner in this project, BAMF Health is a key innovator in the global radiopharmaceuticals and theranostics industry working to develop effective, efficient, and non-invasive therapeutics for life-threatening conditions. Currently, BAMF Health is the only organization in the country to develop the technology and infrastructure necessary to further the study and implementation of AI-based precision medicine, molecular imaging, and theranostics.

In order for BAMF to manufacture and distribute their radiopharmaceuticals in the safest way possible, their radiopharmacy — to be completed in partnership with MSU — required the installation of a three-part cleanroom suite. That's where Starrco's superior modular cleanroom systems came into play.



The Challenge

Developing the custom-sized, precision-fit pieces the client & our dealer needed to complete a complex cleanroom suite design.

BAMF & MSU came to one of Starrco's most experienced dealers, Angstrom Technology, for their expertise in cleanroom design and installation. Angstrom knew that for this project, Starrco's solutions would provide not only the custom features their client needed, but also the precision environment that was required for such an innovative, cutting-edge radiopharmacy. Challenges unique to this project for the Starrco team would include developing a modular wall system that could accommodate BAMF Health's complex design and sensitive machinery.

The new cleanroom needed:

- 3 specific areas for each:
 - Commercial Operations
 - Therapeutic Infusion
 - Research & Development
- 17 internal rooms to fit within those three areas
- Space to accommodate a variety of unique features, machinery, and equipment.

The greatest challenge this project presented was building around the sensitive equipment that BAMF Health needs to complete such innovative work. For the project, MSU had purchased 18 hot cells, which are highly specialized machines that were shipped from Italy and needed to be treated with the utmost care. In addition to requiring careful handling, these machines are huge — 12ft high and 4ft wide each.



Starrco needed to manufacture an airtight cleanroom and modular wall system that could accommodate that large, sensitive machinery. That challenge, combined with the additional effort of completing the project within a building that is actively under construction, made this project a unique, complex project for the Starrco team to tackle.

The Solution

A 3,200 Square Foot ISO 7 & 8 Cleanroom Suite Designed To Accommodate First-of-its-Kind Technology.

With a clear understanding of what BAMF Health & MSU were looking for, Angstrom got to work designing a custom, 3,200 square foot cleanroom that would meet both ISO 7 & 8 standards. To ensure this project was completed according to the client's specifications and timeline, the Starrco manufacturing team worked seamlessly with our dealer's design & installation crew. Starrco delivered custom-sized construction components that would accommodate large equipment, maintain strict environmental control, and accommodate a wide range of special features. From managing custom design features to coordinating delivery and installation times, Starrco was able to partner with our dealer to ensure this project was completed on time.

The Results

The Precision-Controlled Space BAMF Health & MSU Need To Innovate Life-Saving Technologies & Treatments.

Starrco was able to manufacture the cleanroom wall system solution that perfectly addressed the client's needs. We remained in close communication with Angstrom throughout to streamline the installation process and ensure their team had everything they needed to complete this complex cleanroom with ease. As a result, the finished cleanroom exactly matched BAMF Health's specifications. **Together, Starrco and Angstrom worked together to deliver:**

- A 3,200 square foot cleanroom suite that meets ISO 7& 8 standards
- 17 internal rooms, separated into three specific areas
- 10-foot internal ceiling heights
- Seamless integration of 18 hot cells
- Environmental control and monitoring systems in each room

The completed 3,200 square foot cleanroom is the first-ever radiopharmaceutical cleanroom of its kind. Now open for BAMF to complete research, manufacture medicine, and diagnose & treat patients, this cleanroom is helping bring innovative new medicine and treatment to the world.



Making The World A Healthier Place

Starrco is proud to have played a small part in a big project that's helping to make the world a healthier place. As BAMF Health & MSU continue to develop new, innovative facilities, we look forward to the opportunity to supply the high-quality modular construction solutions they need.



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