VON GAHLEN
FOR SURE

MOVING FORWARD RADIOPHARMACEUTICAL RESEARCH

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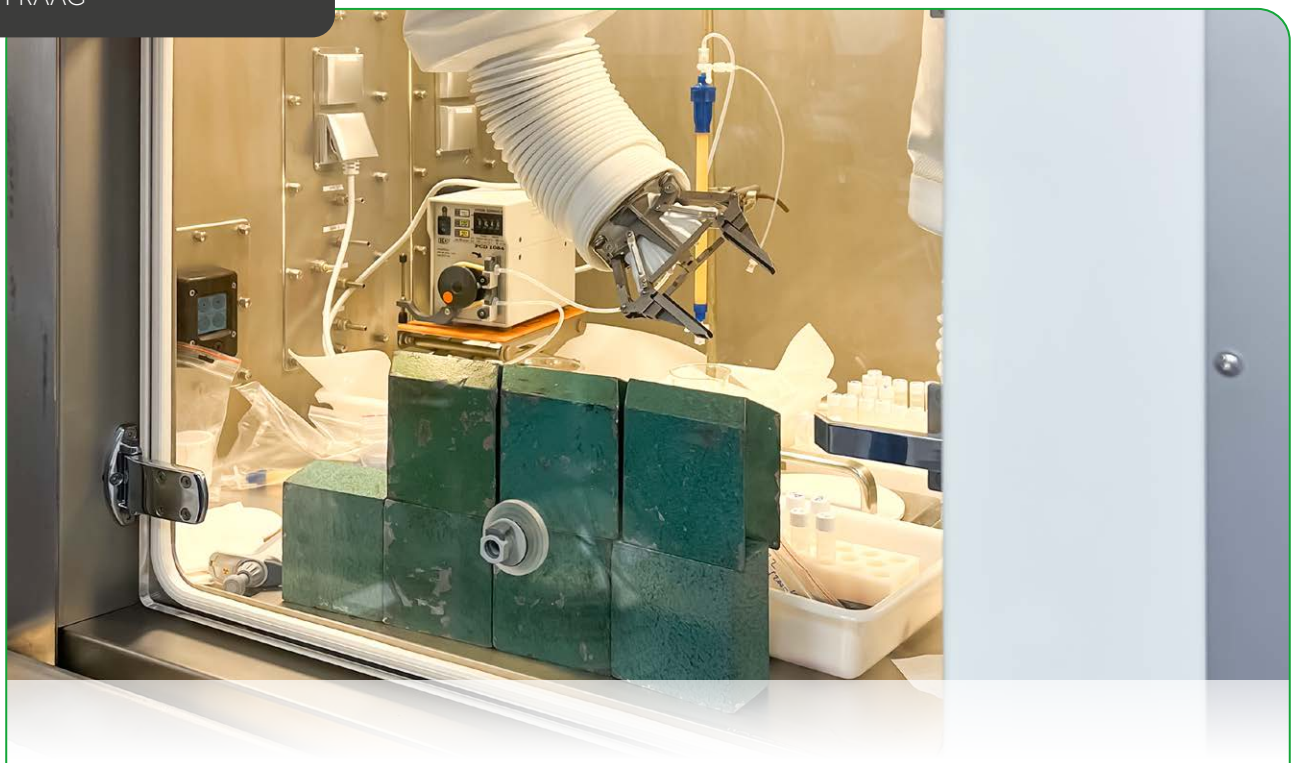
Czech Technical University (CVUT) in Prague is one of the largest and oldest technical universities in Europe. The focus of their Faculty for Nuclear Sciences and Physical Engineering lies on various challenges in the field of nuclear research. This includes separation technologies, radio analytical methods and nuclear chemistry of radiopharmaceuticals. We provided the Department of Nuclear Chemistry with a research hot cell, equipped with manipulators. RNDr. Martin Vlk, Ph.D. takes us through the process and significance of versatility for his faculty.

INTERNATIONAL COLLABORATION

The Department of Nuclear Chemistry conducts experiments for external parties. It is also used by students at the Technical University. The main focus of the department is to research actinium. Their goal is improving its use for cancer treatments. Martin: “Nuclear chemists are like a huge family. We are collaborating a lot with other organizations, for instance in Poland and Germany. By combining our efforts, we hope that actinium will soon have a common application in the nuclear medicine practice.”



A FUTURE-PROOF SOLUTION

When orientating for a partner to design and build the new installation, Von Gahlen has stuck the most with the project team. Martin: “Our goal was to buy something for the next 15 or 20 years. We saw an installation of Von Gahlen’s in Belgium that looked well-designed and had a lot of utilities.” The team also noticed that the accompanying documentation was carried out very diligently.

Martin: “By documenting the entire process step by step, such as the design qualification and the operational qualification, we were able to explore the possibilities and compare the parameters. That is how we knew that the installation would see to our needs. A lot of money was involved. But we knew exactly what we bought.”

CONTROL OVER THE PROCESS

Above all, the research team wanted a versatile system. Martin: “The production and installation of hot cells is a niche market. You cannot simply order them from a catalog. We were happy that Von Gahlen kept asking us the right questions during the documentation of our requirements and wishes. This really forced us to think everything through.”

AN OPTIMAL WORKFLOW

The research team is particularly enthusiastic about working with the manipulators. Martin: “The manipulators are very important for us regarding radiation safety. Luckily, operating them is very intuitive. You can easily open the doors and the airlock, remove the cap of the container and take out an ampoule. The lead glass in the hot cell ensures radiation safety, while providing a clear view of the research subject inside.”

MOVING FORWARD

Currently, the new hot cell installation is used for the production of Terbium-161 for research purposes. This isotope allows cancer cells to be treated very locally, keeping damage to healthy tissue to a minimum. Martin: “With the new hot cell, we can do a lot of things ourselves and we are less dependent on other laboratories. We have more control over the process. Our new installation really helps our faculty to move forward.”

THE BENEFITS OF OUR MODULAR HOT CELLS:

- Can meet any research and manufacturing requirement, compliant with USP standards
- Engineered and constructed for continuous protection and everyday laboratory use
- Allows for the use of various master slave manipulators

Would you like to know more about this project or about the options and possibilities of our laminar hoods?

Feel free to contact us

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