For immediate release

Trasis AllinOne synthesizer is breaking the limits of radiopharmaceutical research

One process with two reactors, two HPLC, SPE prepurification and click chemistry on one compact box

Liège, Belgium, September 4th 2016- Trasis, leading Belgian manufacturer of equipment and consumables for the preparation of radiopharmaceuticals today announced groundbreaking research work conducted by the French research group NancycloTep that is setting the path for new radiopharmaceutical research possibilities.

AllinOne synthesizer had already proven in the past its high versatility in hard chemistry with complex processes such as the high output nucleophilic FDOPA that uses two reactors, the integrated preparative HPLC system and an external air cooler.

The limits of complex chemistry have now been pushed even further with AllinOne. Radiochemistry research conducted by Dr. COLLET Charlotte from the research group NancycloTep GIE (Université de Lorraine, CHRU Nancy; France), led by Professor KARCHER Gilles, has shown that more complex chemistry can be performed by using the whole set of capabilities and features of the AllinOne synthesizer. The automated process[1] performed on the synthesizer at NancycloTep is extremely advanced and sets the path for new and exciting research activities.

This work was made possible due to the unique research-oriented features of the AllinOne: up to three reactors, 36 valves, integrated preparative HPLC system with two columns, easy-to-use programming interface and development cassette.

Dr Charlotte COLLET stated: “AllinOne’s graphical interface is realistic and easy to program. The automated synthesizer allowed us to perform both multi step radiosyntheses in reproducible conditions and with good yields, such as the click glycosylation, and routine production of radiotracers.”

Dr COLLET’s research was aimed at developing new fluorinated carbohydrate prosthetic groups to label peptides (RGDC and c(RGDfC)) by click glycosylation in collaboration with the chemistry lab SRSMC (Dr LAMANDE-LANGLE Sandrine). The process consists of several phases and uses the most advanced AllinOne model. As a starting step, fluorination of the glycoside precursor occurs in the first reactor to yield a protected fluorinated intermediate.

This intermediate is then purified on the integrated semi preparative HPLC. The collected fraction is transferred and solvent is evaporated into the second reactor, where the purified intermediate is deprotected in a first reaction. A click chemistry reaction then occurs between the deprotected intermediate and the peptide precursor to yield the radiolabeled peptide. Prepurification by filtration on Chelex cartridge is performed before the final purification of the radiolabeled peptide on the integrated preparative HPLC, which ensures a very high purity product.

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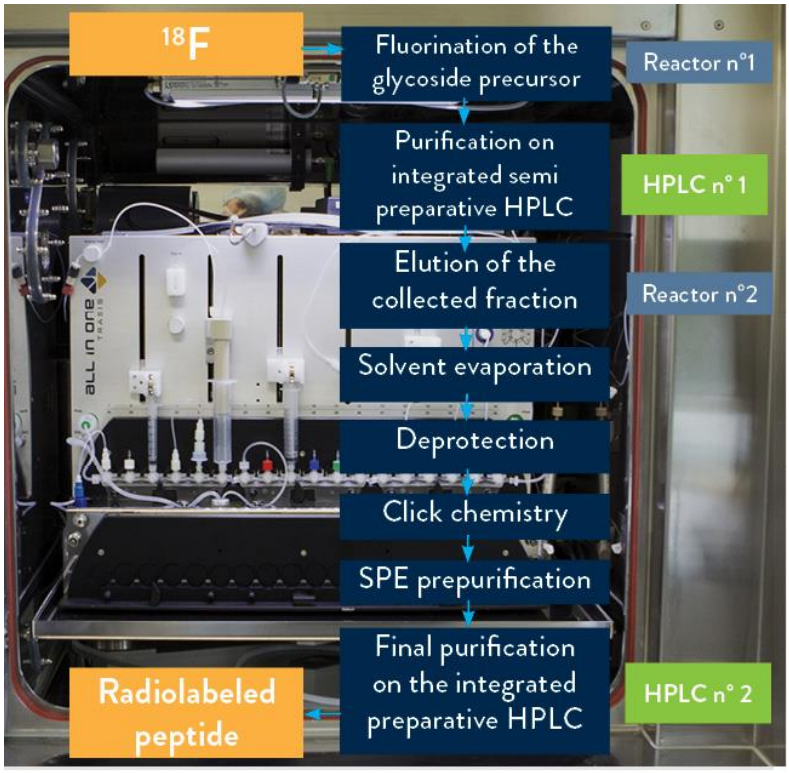
[1] Title: **Development of 6-[^{18}F]fluoro carbohydrate-based prosthetic groups and their conjugation to peptides via click chemistry.** Collet C., Maskali F., Clément A., Chrétien F, Poussier S., Karcher G., Marie P.Y., Chapleur Y. Lamandé-Langle S. J. Label. Compd. Radiopharm., 2016, 59, (2) p54-62, DOI: 10.1002/jlcr.3362



The results are extremely encouraging and the research group will carry on with in vivo PET evaluation with tumor overexpressing integrins.

The findings of the research group have been presented during the European Symposium on Radiopharmacy and Radiopharmaceuticals (ESRR) 2016 which took place in Salzburg, Austria. Please feel free to contact us if you wish to find out more on Dr. Collet's presentation.

About Trasis

Trasis is a Belgian company specialized in the development and manufacturing of innovative and high quality radiopharmaceutical equipment. Trasis is dedicated to helping the medical community access new radio-labelled therapeutic and diagnostic substances easily and faster. To achieve this Trasis designs, manufactures and sells synthesizers, dose preparation equipment, their shielding and accessories and provides integrated solutions adapted to the evolving needs of the radiopharmaceutical industry.

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