

Think Almac. Targeted Theranostics

Tailored solutions for radiopharmaceutical precursors from discovery to development to commercial launch

- A trusted provider of peptides and small molecules
- Expertise in chelator chemistry
- ICP-MS services for biodistribution studies
- Specialists in small-scale GMP manufacture of cold precursors



Radiolabelled peptides have shown increasing utility in the diagnosis and treatment of cancer. The tumour-targeting peptide can be combined with radionuclides including ^{68}Ga for imaging (diagnostics) or ^{177}Lu / ^{225}Ac / ^{212}Pb for therapy (therapeutics). Many of these peptides can be used for either approach leading to the concept of theranostics.

Almac has intimate knowledge of all the required steps to progress a peptide radiopharmaceutical precursor from initial concept to your first in human testing, and through your entire clinical journey. We have ongoing programs from Phase 0 through to Process Validation, and supported a commercial radiopharmaceutical launch in 2023.

Analytical Support

Almac's ICP-MS team can support radiopharmaceutical development throughout the discovery and clinical journey. We have over 40 man-years of experience in developing trace metal analysis methods with sensitivities down to sub-ppb levels.

Almac can support your GMP development program and early discovery efforts alike. Indeed, in the lead-selection stage, metal biodistribution studies can benefit greatly from a focused ICP-MS method to analyse your tissue (in-vivo) or cell (in-vitro) extracts. Biodistribution studies of cold-metal analogues of your lead molecules in the preclinical stage is a more cost-effective approach and typically faster (time sensitive) using Almac's ICP-MS team, versus using the radioactive version of your lead compound(s).

Our dedicated team of experts is here to accompany you throughout this journey, as a standalone service or as an integrated program with our chemistry teams.

Why Almac?

The Almac peptide team has been providing peptide synthesis solutions for clients since 1994, with over 500 man-years of experience in peptide manufacture, analytics and technical project leadership from our UK sites in Craigavon, Northern Ireland and Edinburgh, Scotland.

The highly regulated nature of our business means that our sites are licensed appropriately for peptide manufacturing activities and audited by regulatory authorities from the UK (MHRA) and US (FDA).

Almac's custom synthesis team excels in peptide and peptide-conjugate production to support your R&D efforts from mg to g scale. Our experts have worked on tens of thousands of structures and can tackle your requirements for bespoke peptides to support drug discovery, lead optimisation, route scouting, as well as analytical and process development efforts through impurities and standards synthesis.

Our unique high-throughput small-scale cGMP peptide facility offers milligrams to grams of your selected candidate peptide for rapid access to Phase 0 & I within short timeframes. This approach is a fast and cost-effective solution for first-in-human applications, particularly for small trials or low-volume areas such as imaging.

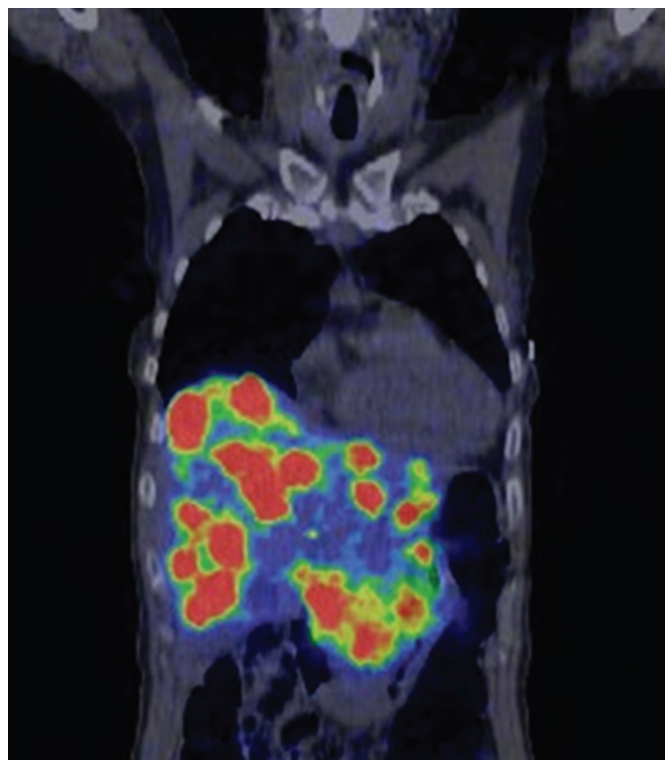


Figure 1. PET-CT (Positron Emission Tomography-Computed Tomography) scan of a patient dosed with a pre-clinical radiopharmaceutical drug candidate that localises to metastasized tumour (shown in red) and demonstrates minimal uptake to kidneys or other critical organs

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