

# THERANOSTICS INSIGHTS

## $^{177}\text{Lu}$ -SN201



### Radioisotope

Lu-177, lutetium-177  
Transition metals  
 $T_{1/2}$  : 6.71 days

### Production

In nuclear reactor:  
 $^{176}\text{Yb} (n, \gamma) ^{177}\text{Yb}(\beta^-) ^{177}\text{Lu}$

### Radiation

Beta particles ( $\beta^-$ )  
Gamma photons ( $\gamma$ )

### Use

Currently in clinical trial for treatment of adult with recurrent, locally advanced, or metastatic solid tumors who have progressed under previous standard therapy or have no standard of care treatment options.

### Target/Mechanism

$^{177}\text{Lu}$ -SN201 is a radiolabelled nanomedical investigational medicinal product (IMP). The mechanism of action is based on the Enhanced Permeability and Retention (EPR) effect, which is particularly relevant in tumors with increased vascularization, where vessels with high permeability let the nanoparticles accumulate at tumour site.  $^{177}\text{Lu}$ -SN201 will then deliver the beta radiation to cause DNA breakage and cancer cell death, while limiting the radiation to healthy tissues.

### Insight

Tumorad-01 (NCT06184035) is a Phase I/IIa clinical trial designed to determine the maximum tolerated dose (MTD), pharmacokinetics and safety profile of  $^{177}\text{Lu}$ -SN201. Biodistribution and dosimetry are assessed with SPECT/CT, while treatment response with CT or MRI. N Patients: approx. 90. Treatment schedule: up to three cycles over 22 weeks.

- **Part 1:** Dose-escalation, using five different doses of  $^{177}\text{Lu}$ -SN201 to explore the MTD.
- **Part 2:** Dose expansion, enrol patients of multiple tumor types to assess preliminary efficacy

