

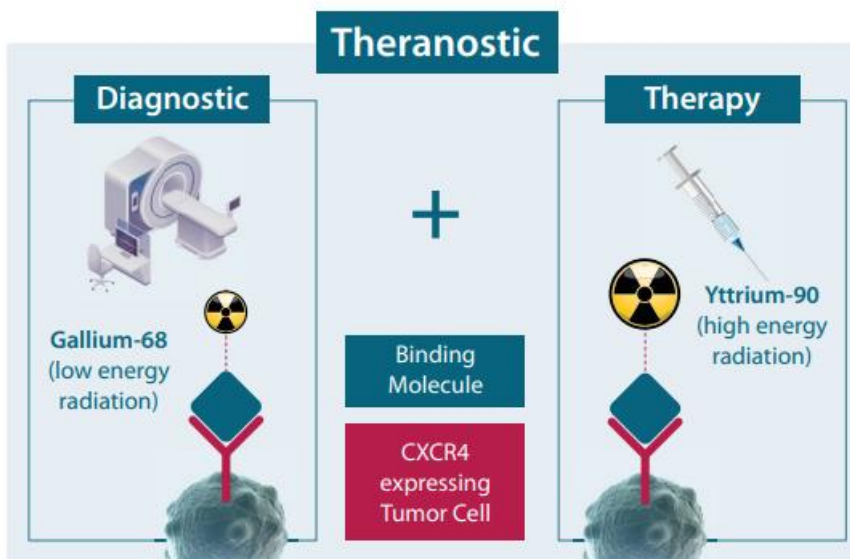
Profile

PentixaPharm GmbH, based in Würzburg and Berlin, was founded in 2019 as a medical start-up and has been part of Eckert und Ziegler Strahlen- und Medizintechnik AG with over 20 employees since June 2022. With over 800 employees, Eckert & Ziegler is a global leader in the development and production of isotope technology components for medical, scientific and measurement technology applications.



PentixaPharm is developing a theranostic approach with the aim of improving imaging diagnostics and therapy of haemato-oncological diseases. The associated radiopharmaceuticals [^{68}Ga]Ga-PentixaFor (gallium(^{68}Ga)boclatixafortide) (diagnostic) and [^{90}Y]Y-PentixaTher (yttrium(^{90}Y)anditixafortide) (therapeutic) target CXCR4 motif chemokine receptor 4 (CXCR4), which is expressed on tumour tissue specifically of the haematopoietic system. [^{68}Ga]Ga-PentixaFor is based on a peptide that can specifically label tumour tissue by binding to the CXCR4 (see illustration below). After the imaging diagnosis of the tumour, [^{90}Y]Y-PentixaTher is used. This therapeutic agent can destroy tumour cells locally and thus leads to less tissue damage at the same time.

Principle of theranostics:



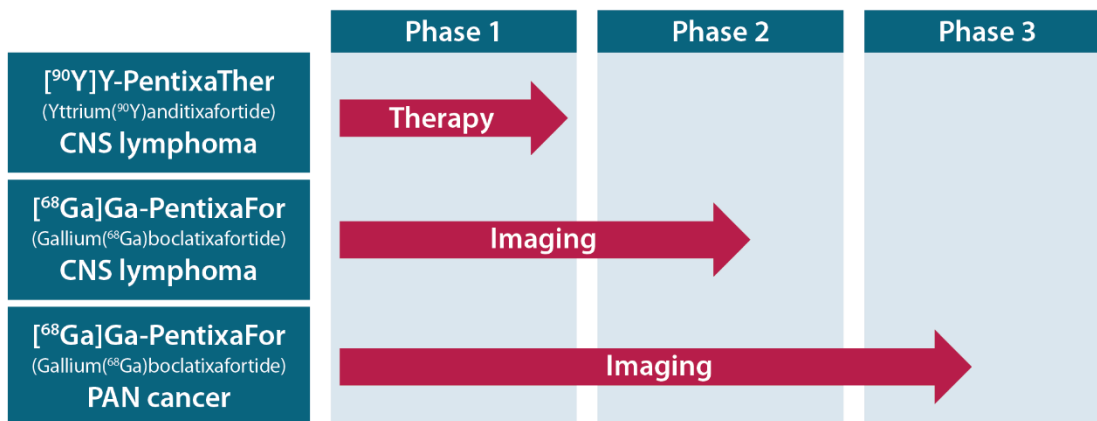
Preliminary data show that $[^{68}\text{Ga}]\text{Ga-PentixaFor}$ provides more accurate diagnostic results than the standard method in specific haematological diseases, thereby supporting the approach of specific imaging diagnostics (Herhaus u. a. 2017; Lapa u. a. 2017; 2015). At the same time, it is evident that $[^{90}\text{Y}]\text{Y-PentixaTher}$ can be used as an effective treatment, especially for diseases of indolent haematological neoplasms (Buck u. a. 2022; Duell u. a. 2021). PentixaPharm is looking to achieve accurate treatment decisions for physicians, as well as improved quality of life/extension of life for patients through targeted and effective theranostic treatment.

PentixaPharm research pipeline:

- Diagnostic pipeline: $[^{68}\text{Ga}]\text{Ga-PentixaFor}$ (Gallium(^{68}Ga)boclatixafortide)**
 Status: Clinical development phase III with testing in patients with haematological and solid tumours
 Status: Clinical development phase II with testing in patients with CNS lymphoma
- Therapeutic pipeline: $[^{90}\text{Y}]\text{Y-PentixaTher}$ (Yttrium(^{90}Y)anditixafortide)**
 Status: Clinical development phase I with testing in patients with CNS lymphoma
 IIS studies:

Several independent renowned research institutions are supporting development through independent scientific activities and clinical trials.

PentixaPharm clinical development programme:



PentixaPharm key figures

Founded: 2019
Employees: > 20
Head office: Würzburg
Branch(es): Berlin

Parent company: Eckert und Ziegler Strahlen- und Medizintechnik AG
Founded: 1997
Employees: > 900
Head office: Berlin
Sales (2021): Euro 180.4 million

Vision & mission

- Vision: To use theranostic methods to detect and improve the imaging diagnostics and therapy of haemato-oncological diseases at an early stage
- Mission: To increase the quality of life and lifespan of patients with haemato-oncological diseases

Problem solving with PentixaPharm's theranostic method for specific tumour therapy

- Precise visualisation and localisation of various haematological pathologies and neoplasms (e.g. leukemias, lymphomas, multiple myelomas etc.)
- Specific assessment of the tumour stage using radioactive PET/CT technology
- Tracer with short half-life for low radiation dose
- Promising therapy due to beta nuclides with a precise range and low damage potential for the surrounding tissue
- Local targeted reduction of tumour sites

Management team



Anna Steeger is a founding member of the company and, as Managing Director for Finance, has been making sure the numbers and operations are right since 2019. Previously, she was an authorised signatory and portfolio manager at Eckert Wagniskapital und Frühphasenfinanzierung GmbH, now ELSA Eckert Life Sciences Accelerator GmbH, and Head of Finance and Executive Assistant at Octreopharm Sciences GmbH. Anna Steeger completed a Master's degree in economics with a focus on finance at the University of Zurich and at the University of Sydney.



Dr. Hakim Bouterfa is a founding member and, as Managing Director and Clinical Director of PentixaPharm GmbH since 2019, ensures the successful completion of research programmes and clinical trials. Previous positions include Vice President Europe at Molecular Insight Pharmaceuticals GmbH and Global Medical Director Sandostatin at Novartis Pharma GmbH. The doctor of humanbiology and medicine completed his studies at the universities of Marburg and Göttingen.



Dr. Jens Kaufmann is a founding member and, as Managing Director and Head of Manufacturing at PentixaPharm GmbH, has been responsible for the organisation and smooth running of the manufacturing processes since 2019. He gained the relevant expertise as Director RP Development at Ipsen AG and as Head of Chemical Product and Process Development at Eckert & Ziegler AG. He studied and obtained his doctorate in chemistry at the Technical University of Berlin.

Cooperations & references and quotes from doctors

Prof. Alexander Haug, University Hospital AKH Vienna, Nuclear Medicine

"PentixaFor offers decisive advantages in staging and monitoring and can thus have a decisive influence on therapy management. For low-grade malignant lymphomas, such as MALT lymphoma, we have a high demand for improved imaging. I find PentixaFor extremely helpful here. In patients with refractory lymphoma, the tools of therapy become exhausted at a certain point. Here, radionuclide therapy will play an increasing role because it is also tolerable compared to other therapy options."

Prof. Constantin Lapa, Augsburg University Hospital, Nuclear Medicine

"Imaging with CXCR4 is particularly beneficial for indolent tumours from the blood system. As a physician, due to the right diagnose I can choose the right therapy at the right time. This is then also cost-effective. PentixaTher will in future offer powerful therapy with a favourable side effect profile."

Certifications & partnerships

PentixaPharm GmbH is a member of the research network Tumour Diagnostics for Individualised Therapy ([FORTiTher](#)) at the Julius Maximilian University of Würzburg.

Literature:

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