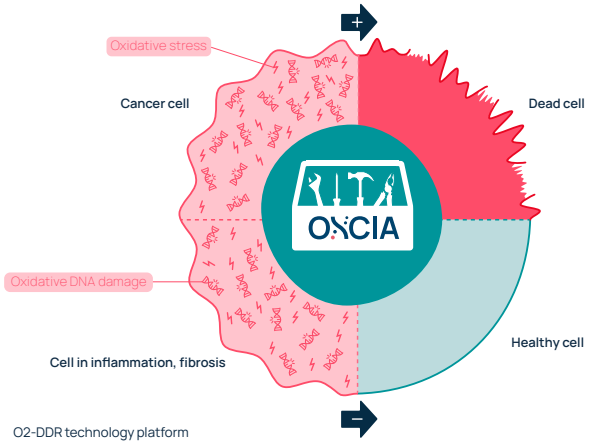
Oxcia – making life less short through clever management of oxidative stress and DNA damage and repair

Unique O2-DDR technology platform generates first-in class candidates

Oxcia has a unique O2-DDR technology platform. It has potential to cure many diseases and extend lives through careful management of Oxidative stress, Oxidative DNA damage and DNA Damage Response in cells. The platform is versatile and different therapeutic effects can be achieved depending on which proteins are targeted and how they are modified. It enables addition of oxidative stress to cancer cells to kill them as well as blocking of oxidative stress to stop inflammation. The two most advanced projects are OXC-101 for cancer and OXC-201 for pulmonary fibrosis.



O2-DDR technology platform

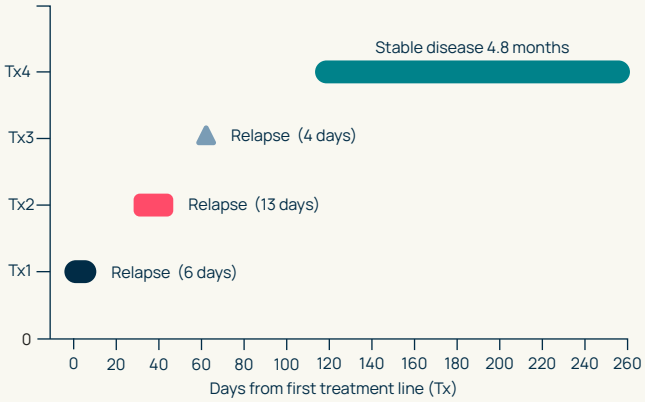
OXC-101: a new way to treat blood cancer, first focus AML

OXC-101 is Oxcia's lead clinical candidate, an oral first-in class mitotic MTH1 inhibitor with a unique dual mechanism of action. In short, OXC-101, fights cancer by taking advantage of one of the Achilles' heels of cancer cells – the high endogenous oxidative stress and DNA damage. The first target indication is AML (Acute Myeloid Leukemia) for which it has been granted Orphan drug designation by the FDA and EMA. AML is an aggressive blood cancer associated with infection, anemia and bleeding.

The groups with the greatest medical need are AML patients who relapse or are refractory, AML patients who do not have a mutation for which specific treatment is available, those with high-risk mutations (e.g. TP53) and venetoclax-resistant patients. These are the patients that OXC-101 is targeting. OXC-101 is easy to administer and kills cancer cells regardless of which mutation they carry. This means that more patients can benefit from the treatment, while both efficacy and tolerability can be improved. Oxcia is presently performing a phase 1/2 study in combination with idarubicin.

Treatment lines

(Tx1 is the first therapy line after diagnosis)



Tx1: Daunurubicin+cytarabine
Tx2: Aza+venetoclax
Tx3: : Amsakrim+Cytarabine+Etoposid
Tx4: OXC-101 + idarubicin

Stable disease in AML patient with high-risk TP53 mutation previously relapsed following multiple lines of therapy

OXC-101: gives dogs with blood cancer hope

Approximately one in four dogs develop cancer during their lifetime. In a collaboration with the Swedish University of Agricultural Sciences (SLU) and Karolinska Institute, the safety and efficacy of OXC-101 are being investigated in a pilot study in dogs with lymphoma or hemangiosarcoma. Preliminary data is positive and shows that OXC-101 is well tolerated, and the dogs are playing and feeling as good as before they became ill.

Sigge with hemangiosarcoma on OXC-101 treatment

OXC-101: also promising for psoriasis and other autoimmune diseases

Just like cancer cells, activated T cells have an altered redox status, oxidative stress, and increased levels of the DNA repair protein MTH1. Oxcia has shown that OXC-101 kills activated T cells and reduces levels of cytokines involved in e.g. psoriasis. A topical form of OXC-101 is being developed by Oxcia's international partner for psoriasis and other dermatological indications.

Patient with plaque psoriasis respond well on OXC-101 treatment.

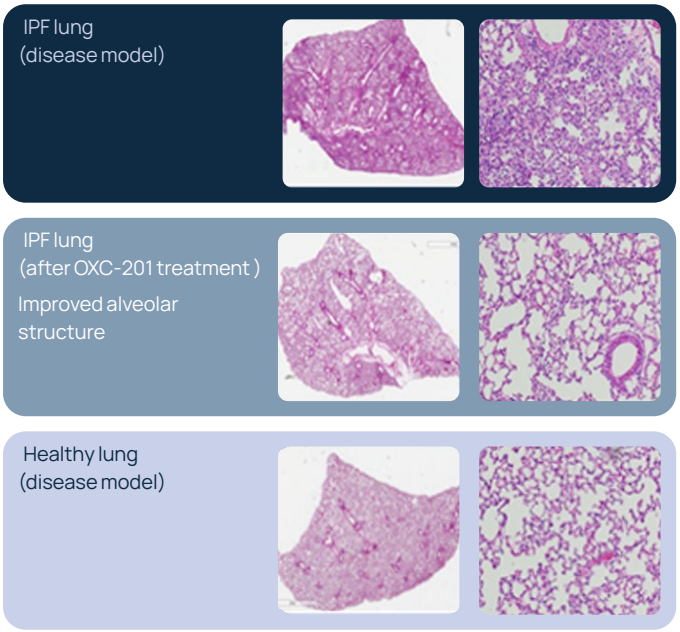
OXC-201: a novel treatment approach for IPF (pulmonary fibrosis)

Deals directly with the root cause and inhibits the binding of the enzyme OGG1 to DNA.

IPF is a progressive lung disease with dramatically reduced breathing capacity, eventually followed by complete lung failure. Oxidative stress is one of the root causes of the onset of IPF. OXC-201 has a unique mechanism of action that acts selectively under conditions of oxidative stress and thereby significantly attenuates several of the disease processes involved in IPF with good tolerability. OXC-201 thus has the potential to stop disease progression, improve lung function, avoid tissue damage and improve the quality of life of patients affected by the still incurable disease.

By targeting the DNA repair enzyme OGG1, OXC-201 inhibits binding of OGG1 to DNA and thereby the modulation of gene transcription. This has been shown to protect against inflammation and fibrosis. Oxcia is completing pre-clinical studies which has been largely financed by a grant from the EIC (European Innovation Council) of 2.5 million euros. Clinical phase 1 trial is aimed to start early 2027.

New research findings have recently revealed OXC-201 as highly interesting for other inflammatory indications such as e.g. allergic asthma.



OXC-201 treatment repairs lung and improves lungfunction in bleomycin-induced lung fibrosis mouse model.

Oxcia's R&D is built on proven science

Oxcia is a spin-out from Karolinska Institute and Professor Thomas Helleday's laboratory. Professor Helleday is the inventor of the use of PARP inhibitors in certain types of cancer. The discovery resulted in a new class of drugs (DDR inhibitors) that have become bestsellers. Prof. Helleday's laboratory is a key source for the flow of new projects to Oxcia.

Strong Intellectual Property

Oxcia's projects have strong patents with good geographical coverage. Oxcia has perpetual and exclusive licenses to the substance patents for its projects from the Helleday Foundation.

Strategy

Oxcia prioritizes indications with high unmet need. This increases the possibilities of orphan drug status/fast track and/or conditional approval to shorten the road to the market.

Oxcia develops early research projects through preclinical studies and clinical development up to phase III at the latest. For commercialization, Oxcia out-licenses or partners with pharma that have the capacity to bring the product to market and broad clinical use. Presently the interest from pharma is high in Oxcia's indications as exemplified with some recent deals, the Amgen/Dark BluePrint deal in AML and the Eli Lilly/Mediar deal in IPF.

Experienced team with a broad network

The Oxcia team brings a wealth of skills and experience from pharma as well as academia in all relevant fields, from pre-clinical to commercialization. Oxcia has furthermore a seasoned board and scientific advisory boards with highly recognized international key opinion leaders.

For more information:

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