Novartis Hematology in Europe

Blood cancers and serious blood disorders affect one or more parts of the blood, such as red blood cells, white blood cells, platelets and plasma, preventing the blood from functioning as it should.

Blood cancers and serious blood disorders affect many people across Europe

154,000 PEOPLE died in Europe in 2019 from blood cancers

This accounts for 8% of all cancer deaths in the region.

Placing a significant burden on patients and their families

82% of patients with blood cancers experience disabling symptoms.

The effects of this are felt across society and the economy

The total economic cost of all blood disorders and blood cancers in Europe is estimated to be €23 billion per year.

However, across Europe, significant progress has been made by Novartis and our partners in treating a range of blood disorders over the years.

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We believe that anyone living with a blood cancer or serious blood disorder has the right to a life free from pain, free from symptoms and free from disease – this is our vision for the future.

Advances in hematology treatment give so much cause for hope. It’s our responsibility to turn that hope into reality for every patient. Wherever they live and whomever they are.

Today Novartis Hematology has nearly 20 approved medicines for hematological conditions, across dozens of blood cancers and serious blood disorders, but we won’t stop there. We are bold in our relentless pursuit to develop and bring to patients breakthrough therapies for blood cancers and disorders, from targeted therapies, to precision cell and gene therapy, to immunotherapy.

Therapy areas we are working in:

**CML**
- Our targeted therapies have helped transform CML from a life-limiting disease to a chronic one for many patients. We are committed to further transforming CML care – this time through the development of an inhibitor specifically targeting the ABL myristoyl pocket (STAMP) which may help address tyrosine-kinase inhibitor (TKI)-resistance and intolerance in later treatment lines of CML.

**MDS**
- Immunotherapies are revolutionizing cancer care however, most of the benefits to date have been seen in patients with solid tumors, and less so in blood cancers.
- However, the discovery of TIM-3, an immune target, may change that. By blocking TIM-3 in MDS, we may have the opportunity to directly target cancer cells and also the immune response. Novartis is continuing to evaluate the use of TIM-3 for treating MDS and encouraging response rates have been seen so far.

**Sickle Cell Disease**
- Sickle cell disease is a chronic, lifelong, debilitating disease that can range in clinical severity. Our scientists are working to evaluate potential disease-modifying therapies. Because sickle cell disease has a single genetic mutation, it provides unique opportunities in exploring gene editing technologies, such as CRISPR.

**DLCBL, ALL and Follicular Lymphoma**
- We have revolutionized cancer care with CAR-T cell therapy, for the treatment of DLBCL and ALL. This is a cutting-edge therapy that uses specifically altered cells from the immune system to fight blood cancers.
- Our focus is to continue researching potential next-generation CART therapies and broaden their impact, and are researching its use for the treatment of relapsed and refractory follicular lymphoma.

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*Novartis. Novartis receive first ever FDA approval for a CAR-T Cell therapy, Kymriah(TM) (TOLI019), for children and young adults with B-Cell ALL that is refractory or has relapsed at least twice [Novartis [Internet]. 2017 [cited 16 December 2020]. Available from: https://www.novartis.com/news/media-releases/novartis-receives-first-ever-fda-approval-for-crt-cell-therapy-kymriah-tolli9-for-children-and-young-adults-b-cell-ll-that-is-refractory-or-has-relapsed-at-least-twice*


