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## **Hercules' AhR inhibitor HP163 blocks viral replication in Zika infection and potentially in Covid-19**

**Secured additional funding for Covid-19 testing and back-up drug discovery**

*Leiden, The Netherlands, August 20, 2020* – [Hercules Pharmaceuticals](#), a Dutch biopharmaceutical company focusing on developing small molecule inhibitors of the Aryl Hydrocarbon Receptor (AhR) for treatment of cancer and viral infections, today announced the publication of promising preclinical in-vivo trial results, showing efficacy of its Aryl Hydrocarbon Receptor (AhR) inhibitor HP163 against Zika virus infection and potentially against Corona-virus infection. On top of this, the company secured new funding to test the efficacy of the compound against Covid-19 and to generate back-up AhR inhibitors.

A recent publication in [Nature Neuroscience](#) reported that Hercules' AhR inhibitor HP163 reduces viral replication in animals infected with Zika-virus and reduced microencephaly. In-vitro studies also showed efficacy of AhR inhibitors against Dengue, a related virus.

In addition, a pre-publication of an article on [Research Square](#) concludes that AhR inhibition may also be effective against Covid-19 and other corona virus infections via a similar mechanism.

It was found that virus infection triggers AHR activation, limiting the production of type I interferons (IFN-I), involved in antiviral immunity. Moreover, AHR activation suppressed intrinsic anti-viral immunity driven by the promyelocytic leukemia (PML) protein, resulting in increased viral replication. AHR inhibition with Hercules' HP163 blocked Zika virus replication and ameliorated newborn microcephaly in a murine model.

Successful development of AhR inhibitors could lead to oral treatment of patients with early stages of virus infection.

### **New funding by Pharma Connect Capital**

Hercules will further investigate the potential of its AhR-inhibitors for treatment of Covid-19 infections and will generate additional novel AhR inhibitors for both anti-viral and cancer treatment. To fund this program, Hercules has received an investment from Groningen based Pharma Connect Capital and a grant from SNN (Samenwerkingsverband Noord Nederland). As part of the investment, Hercules will relocate to Groningen.

### **Bart Wuurman, CEO of Hercules Pharmaceuticals, comments:**

*"We are excited by the novel finding that the Aryl Hydrocarbon Receptor acts as a host factor for viral infections to allow viral replication. A remedy is urgently needed to treat zika and dengue infection, but mentioned studies also suggest that AhR inhibitors might be an effective oral treatment of patients with Covid-19, the virus which is holding our daily life hostage at this moment."*

=== E N D S ===

### **About Zika and Dengue**

Zika virus is spread by mosquitoes and is related to dengue, yellow fever, Japanese encephalitis, and West Nile viruses. Zika can spread from a pregnant woman to her baby. This can result in microcephaly, severe brain malformations, and other birth defects.

Dengue fever is also a mosquito-borne tropical disease caused by the dengue virus. Symptoms may include a high fever, headache, vomiting, muscle and joint pains, and a characteristic skin rash. In some cases, the disease develops into severe dengue, also known as dengue hemorrhagic fever, or into dengue shock syndrome. About 390 million people are infected each year and approximately 40,000 die.

### **About Hercules Pharmaceuticals**

Hercules Pharmaceuticals is a Dutch private biopharmaceutical company, focusing on developing small molecule inhibitors of the Aryl Hydrocarbon Receptor (AhR) for treatment of cancer and viral infections. AhR-inhibitors are known for enhancing anti-cancer immunity in the tumor microenvironment, and several AhR inhibitors are in clinical development for treatment of solid tumors. Founder and Chief Scientific Officer of Hercules, Professor David Sherr is a key opinion leader in immunology related to the Aryl Hydrocarbon Receptor, based in Boston.

### **About Pharma Connect Capital**

Pharma Connect Capital B.V. ([www.pharmaconnectcapital.com](http://www.pharmaconnectcapital.com)) is an investment fund that finances early stage drug development. The fund is an initiative of Investering's Fonds Groningen, University Medical Center Groningen and the Noordelijke Ontwikkelings Maatschappij (NOM) and was launched in October 2017.

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