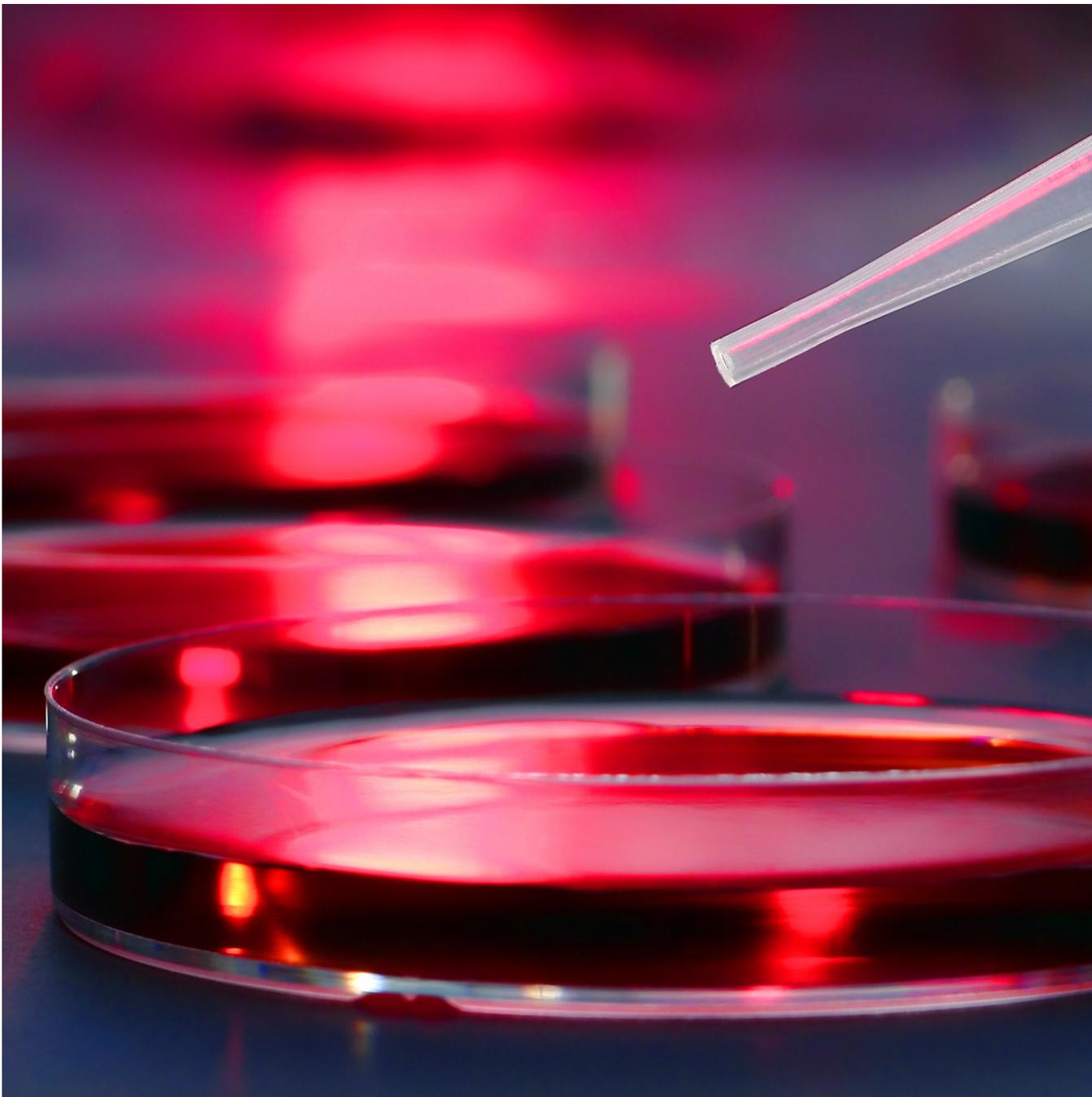
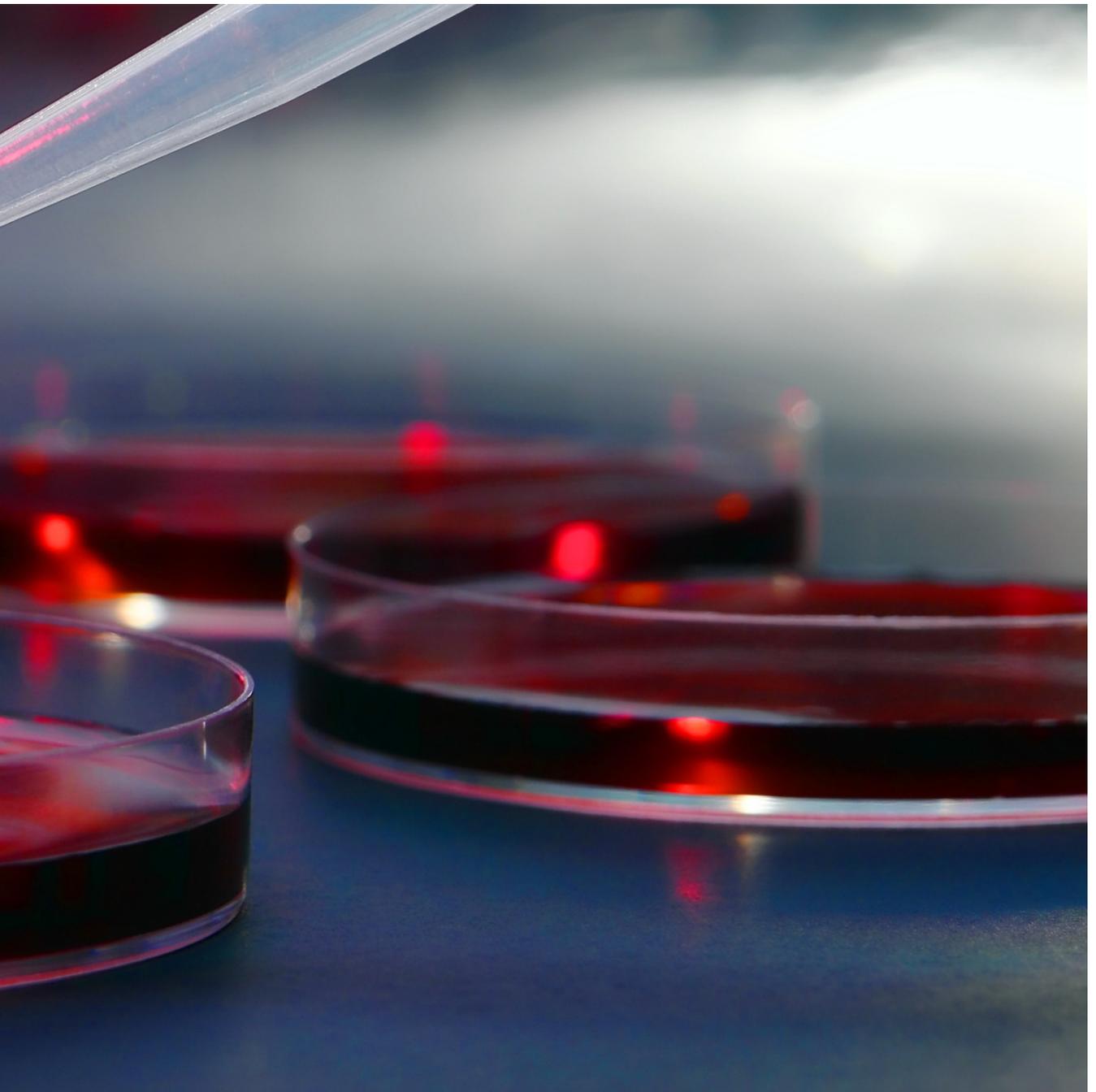


MOLECULES CAN  
PREVENT CANCER  
TUMORS FROM  
GROWING

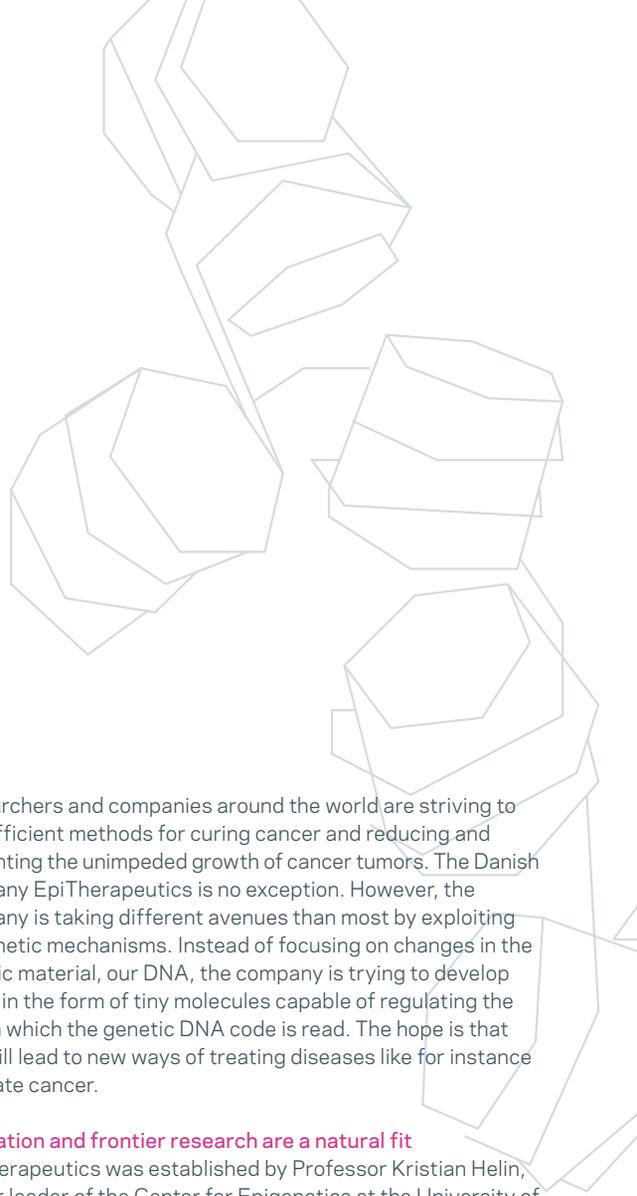


Research is a lot more fun if it has applications in the real world.

KRISTIAN HELIN  
CENTER FOR EPIGENETICS



# MOLECULES CAN PREVENT CANCER TUMORS FROM GROWING



Cooperation between the Center for Epigenetics and the spin-out company, EpiTherapeutics, greatly inspires the young researchers working at the center. They can see that top research can, in fact, be combined with applications.

Researchers and companies around the world are striving to find efficient methods for curing cancer and reducing and preventing the unimpeded growth of cancer tumors. The Danish company EpiTherapeutics is no exception. However, the company is taking different avenues than most by exploiting epigenetic mechanisms. Instead of focusing on changes in the genetic material, our DNA, the company is trying to develop drugs in the form of tiny molecules capable of regulating the way in which the genetic DNA code is read. The hope is that this will lead to new ways of treating diseases like for instance prostate cancer.

## **Innovation and frontier research are a natural fit**

EpiTherapeutics was established by Professor Kristian Helin, center leader of the Center for Epigenetics at the University of Copenhagen. Research results from this center provide the foundation on which the business is built. Researchers described how a specific group of enzymes could, so to speak, turn our genes on and off. The results, published in leading scientific journals, enabled Helin and four other staff members to establish EpiTherapeutics in 2008. However, frontier research remains Helin's top priority, and he thinks that the Center for Epigenetics is at the global vanguard in its field of research.

"The Center for Epigenetics engages in frontier research and should be measured against this research," emphasizes Helin. "However, research is a lot more fun if it has applications in the real world."

This viewpoint is so ingrained that he does not have to compel himself or his researchers to consider how research turns into innovation.

"It just happens," he points out. "But it is clear that our spin-out inspires young researchers at the center. They can see that top research can, in fact, be combined with applications."

EpiTherapeutics currently has 20 employees and is about halfway down the long road from idea to completed drug.

#### Long way from idea to prescription

EpiTherapeutics currently has 20 employees and is about halfway down the long road from idea to completed drug. So far, financial supporters have invested millions of Danish kroner in the spin-out, and the hope is to conduct clinical trials within a couple of years.

The money may be lost if the trials prove futile. On the other hand, if the trials go well, the owners will be able to choose between investing additional amounts in further development or selling patent rights or even the entire business.

As an original promoter, Helin is above all gratified that EpiTherapeutics has already proved to be an interesting partner for major biotech companies.

“But it would be fantastic to succeed in creating a new drug that increases the survival rate of cancer patients,” he says.

#### Frontier researchers are attractive partners for industry

According to Helin, the largest players in the biotech industry already regard EpiTherapeutic as an interesting partner, primarily because the company is founded on excellent research.

In his experience, major biotech businesses and the pharmaceutical industry are extremely interested in cooperating with leading research communities like the Center for Epigenetics on the applications of their results. This is because industry may lead the way for applied research, but academic researchers are the trailblazers of frontier research.

“So to be interesting partners, academic researchers need good opportunities to immerse themselves in free frontier research,” Helin explains. “At the same time, it is crucial that new businesses are located in the place where research occurs, as this facilitates the strong cooperation on driving new scientific findings toward commercialization.”



Photo: Martin Mydtskov

#### FACTS:

Center for Epigenetics  
Center leader / Kristian Helin  
Host institution / University of Copenhagen  
DNRF grant / DKK 111 million  
Period / 2007-2017

 [www.epigenetics.ku.dk](http://www.epigenetics.ku.dk)