press release

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Testbiotech e. V.
Institute for Independent
Impact Assessment in
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Hwang Patent on cloning restricted in Europe

Testbiotech warns about new wave of patent applications

Munich - Today the European Patent Office in Munich is granting a patent on a cloning technology (EP 1711599) that was used by the team working with the controversial Korean researcher Hwang Woo-Suk. In comparison to the original application, the patent as granted is substantially reduced and now only covers the medium used for growing the cells. The patent was applied for in 2004 and originally claimed methods for producing and using of human embryos for the production of embryonic stem cells. The European Patent Office (EPO) rejected these claims by arguing that the technical methods as described were based on flawed technical details. In 2006 it was made public that the researcher had falsified some of his publications.

”It might have been better if Hwang had withdrawn his patent application completely. The decision of the EPO is almost like another condemnation“, says Christoph Then, executive director of Testbiotech, an institution working on impact assessment of biotechnologies ”This patent as filed could not be granted in Europe anyway because it implies destruction of human embryos.”

After taking the decision on the Hwang’s application, the EPO is now facing new challenges in the context of cloning technologies. Research carried out by Testbiotech and the German organisation “No Patents on Life!”shows that the number of patent applications on human embryonic stem cells are strongly increasing. In 2008 and 2009 about 40 patent applications were found to cover the production of so called induced pluripotent stem cells (iPS). This new technology has been welcomed by many experts because it does not require the destruction of human embryos to produce human embryonic stem cells. But these iPS cells

are causing new ethical concerns related to the cloning of humans: As was shown in several publications in 2009, iPS cells can also be used to clone viable individuals. This has already been done in mice and is likely to be feasible in humans: In a first step, adult cells from the human body are manipulated to become pluripotent like embryonic cells. In a second step, even complete embryos can be raised from these cells by using a technology called “tetraploid complementation”. Indeed in several patent applications technical procedures are being claimed to cover the production of embryos from iPS cells.

“We are facing new questions. Until now the question was whether we could allow human embryos to be destroyed in order to produce embryonic stem cells. The new issue is about how we can prevent the use of stem cells for the artificial production of human embryos,” Testbiotech is warning. ”Cells isolated from the human body to create iPS cells harbour a high potential for abuse. These cells not only have a complete copy of the donor's genome but also the potential to reproduce the individual by cloning. Then added that “it is not just of how the patent office deals with this new technology but also a chance to strengthen other legislation that might be required.”

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