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Synthetic Biology for All: The Lecture Series

(Linz, September 24, 2013) In conjunction with Ars Electronica's newest exhibition, "Project Genesis: Synthetic Biology–Life from the Lab," the AEC is hosting a lecture series on synthetic biology. Through the end of November, molecular biologist Manuel Selg will discuss important topics in terms that are easy for laypeople to understand: what the human genome project is all about, and the possibilities synthetic biology is opening up for humankind. Kicking off the series on Thursday, September 26, 2013 is "Synthetic Biology for All: How It All Began."

The lineup through the end of November includes the following three topics:

Synthetic Biology for All: How It All Began

Thursday, September 26, 2013 / 6:30 PM / Ars Electronica Center

The foundation of what is now known as synthetic biology was laid way back in the 20th century. But what precisely were the discoveries that launched the tremendous scientific progress that now makes it possible for scientists to produce identical copies of entire complex organisms? In the beginning, research in this field was dedicated to advancing knowledge, and the endeavor was pervaded by a sense of idealism. The big ideas and the larger-than-life personalities behind them were no less ingenious than today's researchers powered by high-performance technologies and massive funding.

Synthetic Biology for All: The Human Genome Project

Thursday, October 24, 2013 / 6:30 PM / Ars Electronica Center

The objective of the human genome project is to decode the entire genetic material of a human being. Tremendous resources were applied to this project—the labor of thousands of scientists over a planned duration of 15 years and more than \$3 billion. Was it worth it? Did these people achieve everything they set out to accomplish? The project's results are impressive; they truly do represent a giant step forward for science. Nevertheless, humankind faces more unanswered questions today than ever before.

Synthetic Biology for All: We're Authoring Life

Thursday, November 28, 2013 / 6:30 PM / Ars Electronica Center

The human genome project delivered the complete DNA sequence of the human genome, and also significantly improved the technologies available to sequence DNA. This, in turn, has led to the ongoing sequencing of the genomes of other living creatures. All of these genome projects are producing gigantic quantities of scientific data, which are now providing the basis for achieving one of synthetic biology's primary goals: reordering existing genetic information and thus engendering synthetic genomes.

With queries, please contact

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Dr. Manuel Selg

Manuel Selg is professor of molecular biology in the Department of Technology and Environmental Sciences at the Upper Austrian University of Applied Sciences' Wels Campus. He was instrumental in setting up the Ars Electronica Center's BioLab and has taken over as scientific director of Project Genesis.

With queries, please contact

Project Genesis: <u>http://www.aec.at/center/en/ausstellungen/projekt-genesis/</u> Interview with Manuel Selg on the Ars Electronica Blog: <u>http://www.aec.at/aeblog/en/tag/synthetische-biologie/</u>

Ars Electronica Center: <u>http://www.aec.at/news/en/</u>