

Tweaking DNA to produce desired results may take hundreds of research years per project, the result being a work of art rather than an engineering construct.

The Art and Science of life



A portrait of your own DNA

How about a portrait of the Southern Blot of your own DNA? Thanks to DNA 11, Inc., an Ottawa, Ontario based company, this is now possible. The company will send you a swab to scoop some cells from inside your cheek, and in return you get to create a one-of-a-kind artwork that you can hang on your wall

We are confronted with the most powerful technology the world has ever known, and it is being rapidly deployed with almost no thought whatsoever to its consequences

BIO ART is a new art form that has emerged from the cultural impact and increasing accessibility of contemporary biotechnology.

Bio art manipulates the processes of life; in its most radical form, it invents or transforms living organisms. It is not representational; bio art is in vivo. The creations of bio art become a part of evolution and, provided they are capable of reproduction, can last as long as life exists on earth. Thus, bio art raises unprecedented questions about the future of life, evolution, society, and art.

ACCORDING to researchers, edible meat can be grown in a lab on industrial scale. In 1936, Winston Churchill, a carnivore to the core, predicted that “we shall escape the absurdity of growing a whole chicken in order to eat the breast or wing, by growing these parts separately under a suitable medium.” Today, growing meat in the lab still seems the stuff of science fiction, but reality is not far behind.



Neat Meat

Dressing the Meat of Tomorrow project (left) by James King

King proposes scanning the countryside looking for the most beautiful examples of cows, pigs, chickens and other livestock. Once located the animals are scanned from head to toe, creating precise cross-sectional images of their inner organs. These scans are used to mold a designer steak.

A CONTROVERSIAL transgenic art project called “GFP Bunny” by Chicago artist Eduardo Kac. The project not only comprises the creation of the fluorescent rabbit, but also the public dialogue generated by the project and the integration of the transgenic animal into society.

“GFP Bunny” has raised many ethical questions and sparked an international controversy about whether Alba should be considered art at all.

“Transgenic art brings out a debate on important social issues surrounding genetics that are affecting and will affect everyone’s lives decades to come,” Kac is quoted as saying.

Alba, transgenic glowing bunny

with jelly fish genes:

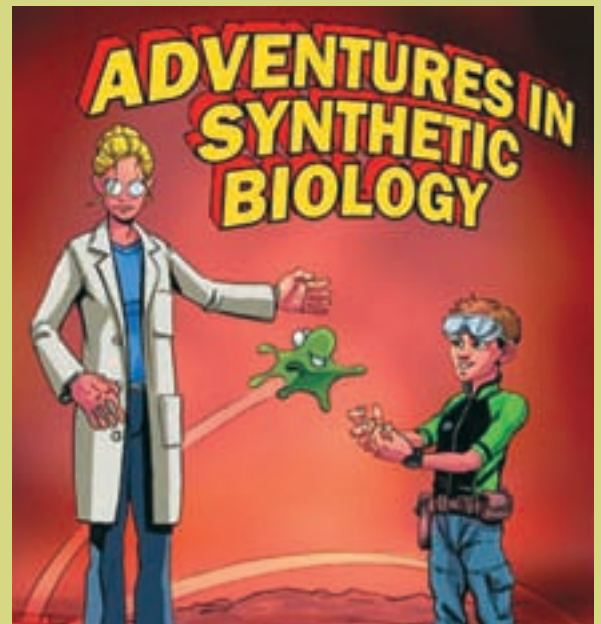
Born 2000, Died 2004
age 4 instead of 12



‘Disembodied Cuisine’

International biological art exhibition “L’art Biotech” in Nantes, France March 2003.

“LIVING ENTITIES are categorised as food or pets. These divisions are not always clear, and we must practice some kind of hypocrisy in order to be able to love and respect living things as well as to eat them. An attempt is made to grow frog skeletal muscle over biopolymer for potential food consumption. A biopsy taken from an animal, which will continue to live and be displayed in the gallery along side the growing “steak”. This installation culminates in a “feast”. Potentially this work presents a future in which there will be meat (or protein rich food) for vegetarians and the killing and suffering of animals destined for food consumption will be reduced. This new palette of manipulation is significantly linked to ethical concerns and emerging philosophical perplexities.”



A new area of research that combines science and engineering in order to design and build (“synthesise”) novel biological functions and systems.

SYNTHETIC BIOLOGY is a discipline that is possible because of numerous advances in microbiology and computational biology over the past 30 years – breakthroughs that gave rise to genetic engineering and sequencing of the human genome. Genetic engineering came into form during the 1970s when scientists in the US developed recombinant technology for modifying an organism’s DNA. They later went on to form Genentech, currently the largest biotech company in existence. In the past three decades, the ability to elucidate new characteristics within bacteria and plants has produced good and bad results. On one hand, biotech companies have created many new drugs produced by genetically modified organisms (GMOs). In fact, the insulin used throughout the United States today is a GMO product. On the other hand, both GMOs tailored for environmental use and genetically engineered plants have been met with much resistance due to their unknown impact on human health.