NANOTECHNOLOGY WITH AI

Nanotechnology with AI robots

INTRODUCTION OF AI AND NANO

Artificial intelligence (AI) and nanotechnology are the most useful technologies today. While unusual use cases of either technology , that both AI and nanotech are already with in us in daily life and being used in mundane, everyday in the world.

In this we are here to see article, we did to get beyond the hyper. Nanotechnologies build instead, we'll look at real-world, existing situations in which AI and nanotech are already being used. And by doing that, we'll immediately see that there is a natural over between the technologies and that can drive the development of both.

Finally, the Nanocomputing. This is gently the area in which there is the closest correspondence between two technologies, and potentially the most productive overcome Nanocomputing is one of the approach to overcoming this problems. Nano computers use a variety of novel media to perform calculations — anything from organic chemical reactions to nano-MOSFETs. Whatever, most of these devices will depend on the intricate physical systems to allow for computational algorithms and machine learning algorithms procedures that could be used to create novel informations representation for a wide range of uses. In the same way that neural networks could help computers code themselves, nanocomputing technologies could allow computers to build themselves. For those of us who like to look under the hood, there are four foundational elements to understand: **categorization, classification, machine learning, and collaborative filtering**. These four steps also represent the analytical process of the fields.

CELL REPAIR MACHINES

Medical Nano Robots Will change medicines at its origins. Cells are generally soft and easily damaged. Many can repair themselves after being punctured, torn, or even ripped in half when damaged during the ordinary wear and tear of normal physiology or as a result of injury or pathology. A system includes nano computers and molecular scale of sensors and tools, programmed to repair damage of cells and tissues in the human body. Nanobots were to performing a variety of similarity functions from away dead cells or tissues at a wound stage and helpful of re-growing tissues so that it heals cleanly and quickly in the damages part without leaving a nasty scars. A

fundamental breakthrough: these machines will free medicine from the reliance on self-repair as the only path to healing.

Selective Destruction: For example cancerous cells, recognize and destroy a specific kind of cells like infected cancer cells and coudling cells. Naturely own cell repair machines are limited to their ability

FEATURES

Size

micron scale robot with nanoscale parts would be from 1 to 100 nm, the actual machine would be 0.5 to 3 microns

Bio Compatibility

Passive Diamond coating, because of its inert nature, is not attacked by the immune system

Powering

Metabolize local glucose and oxygen for energy

Clinical environment acoustic energy

Communication

Broadcast acoustic-type messages

A nano device similar to the Ultra Sound Probe

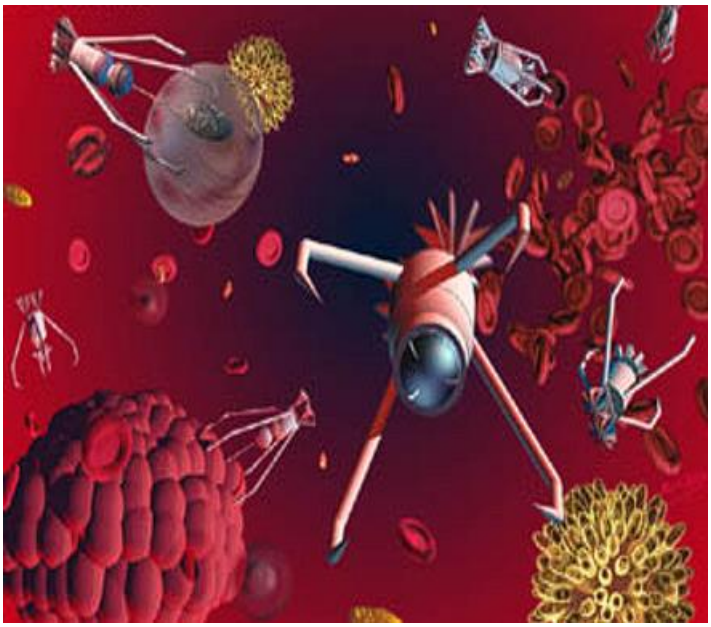
Acoustic sensors

Internal communications network

Navigation

A navigational network with station-keeping navigational elements provides high positional accuracy. Accurated results could be reported to the physicians using the internal communication networks.

Navigating the damaged cells with AI and repairing them



APPLICATIONS OF CELL REPAIR MACHINES

Drug Delivery

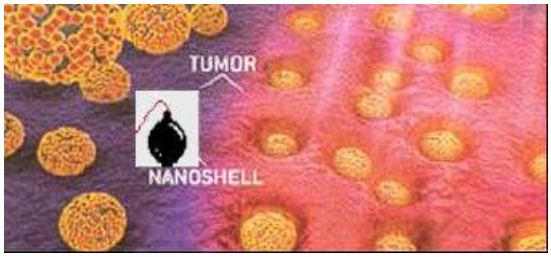
Sophisticated ways

- Side effects can be minimized and stronger medicine could be used during in the drug supply
- Trigger-based will release medicine when needed example Insulin delivery

Correcting Genetic Disorders

Comparing the strand of nucleotides segment by segment. Changing the nucleotides within a DNA so that it matches a correct pattern.

Identifying and repairing the tumor cells and cancer cells



LIMITS AND FEASIBILITY OF CELL REPAIR MACHINES

Developing cell repair machines requires great effort, knowledge, and skill, and tremendous development in Artificial Intelligence. An exact answer cannot be given to the question " when will cell repair machines be available ".Loss of information through the obliteration

of structure imposes the most important fundamental limit to the repair of tissue.

NANOMEDICINES

Nanomedicine is an interdisciplinary field of science, even a simple project needs contributions from physicists, engineers, material chemists, biologists, and end users such as an orthopedic surgeons. Molecular nanotechnology and molecular are key enabling technologies. Analyzing and repairing the human body just as we repair any other machine

Applications:

1. Miniaturizing surgery

2. Tissue reconstruction

3. Eliminating all common diseases, all the medical pain and suffering

RESPIROCYTE

A proposed nanorobot is an artificial red blood cell of the order of 1 micron. Spherical nanorobots are made of 18 billion atoms. A pressure tank that can be pumped up to 9 billion Oxygen O2 and CO2 molecules. By the virtues of its pressure sensors, it releases of Oxygen or Carbon Dioxide. The bottom line is that replicates the action of hemoglobin-filled red blood cells and can deliver 236 times

more oxygen in per unit volume than a natural red blood cells in the human body.

Applications:

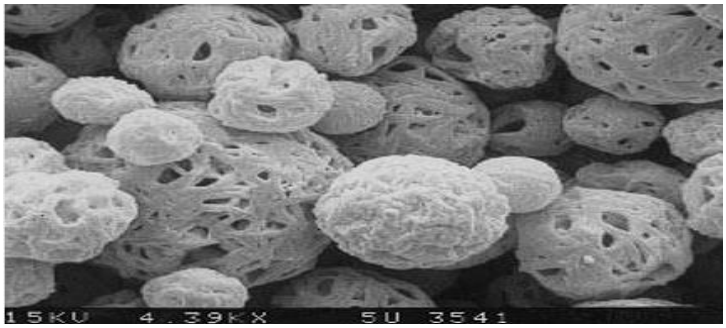
1. Treatment of Anemia

2. Transfusions and perfusions

3. Fetal and Child Related Disorders

Making of Tiny Plastics Particles to deliver the Lifesaving Medicine

Many type of medications as therapeutic DNA, insulin, and human growth hormones must enter into body through painful injections, but a Johns Hopkins researcher is to delivers the same treatment without the sting. Justin Hanes an assistant professor at the Department of Chemical and Biomolecular Engineering is to pack drug medicine into microscopic plastics spheres which can be injected. The new type of porous polymer particles have sufficient of releasing the drugs in an environment resembling the deep lungs in the human body.



CHEMICAL IMAGING

University of Michigan

- Raoul Kopelman, Ph.D student (Department Of Chemistry
- Optical nanosensors for real-time chemical imaging of cellular membranes and intracellular processes, these sensors will monitor pH, calcium, magnesium, sodium, potassium, chloride, and oxygen concentrations within the cells.

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