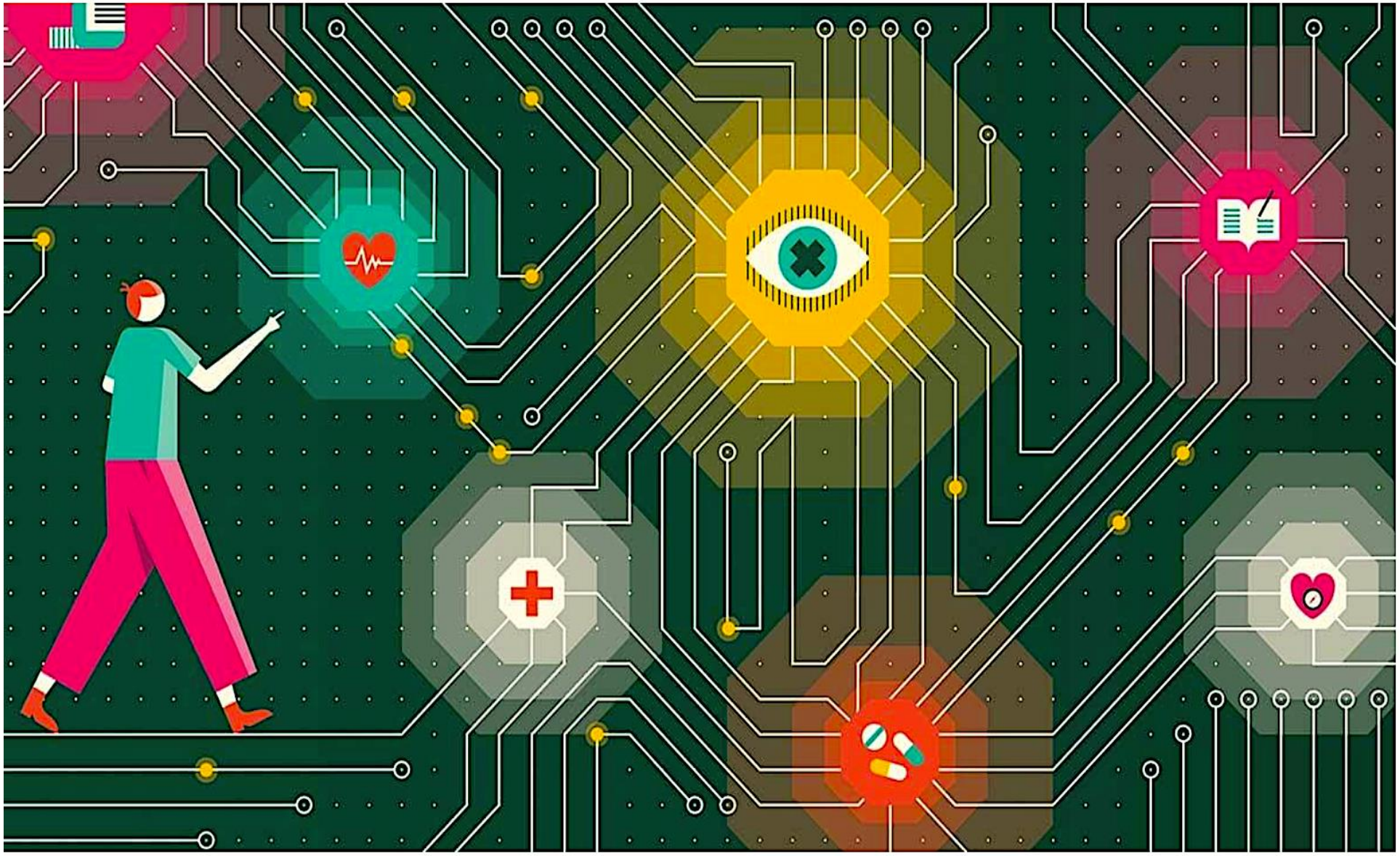
The Future!

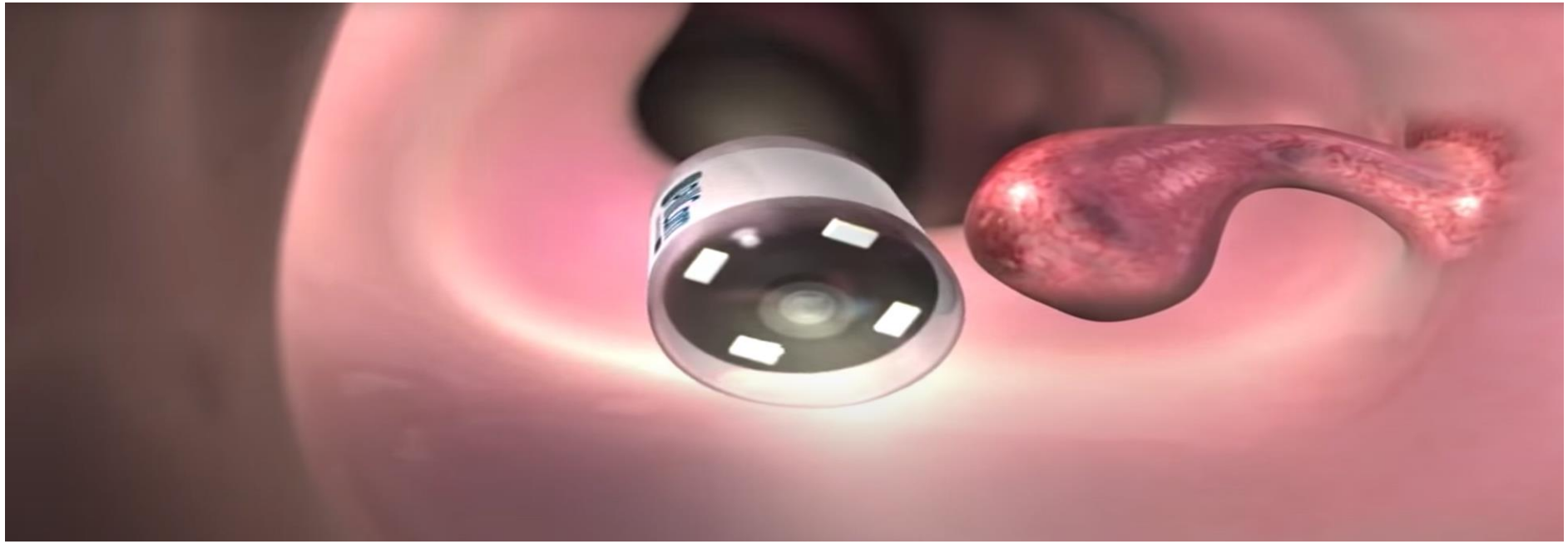
Where do we see the future opportunities for Education, Research, Healthcare, Innovation, Start Ups and Business in the healthcare sector?

The Future of Medicine and Healthcare

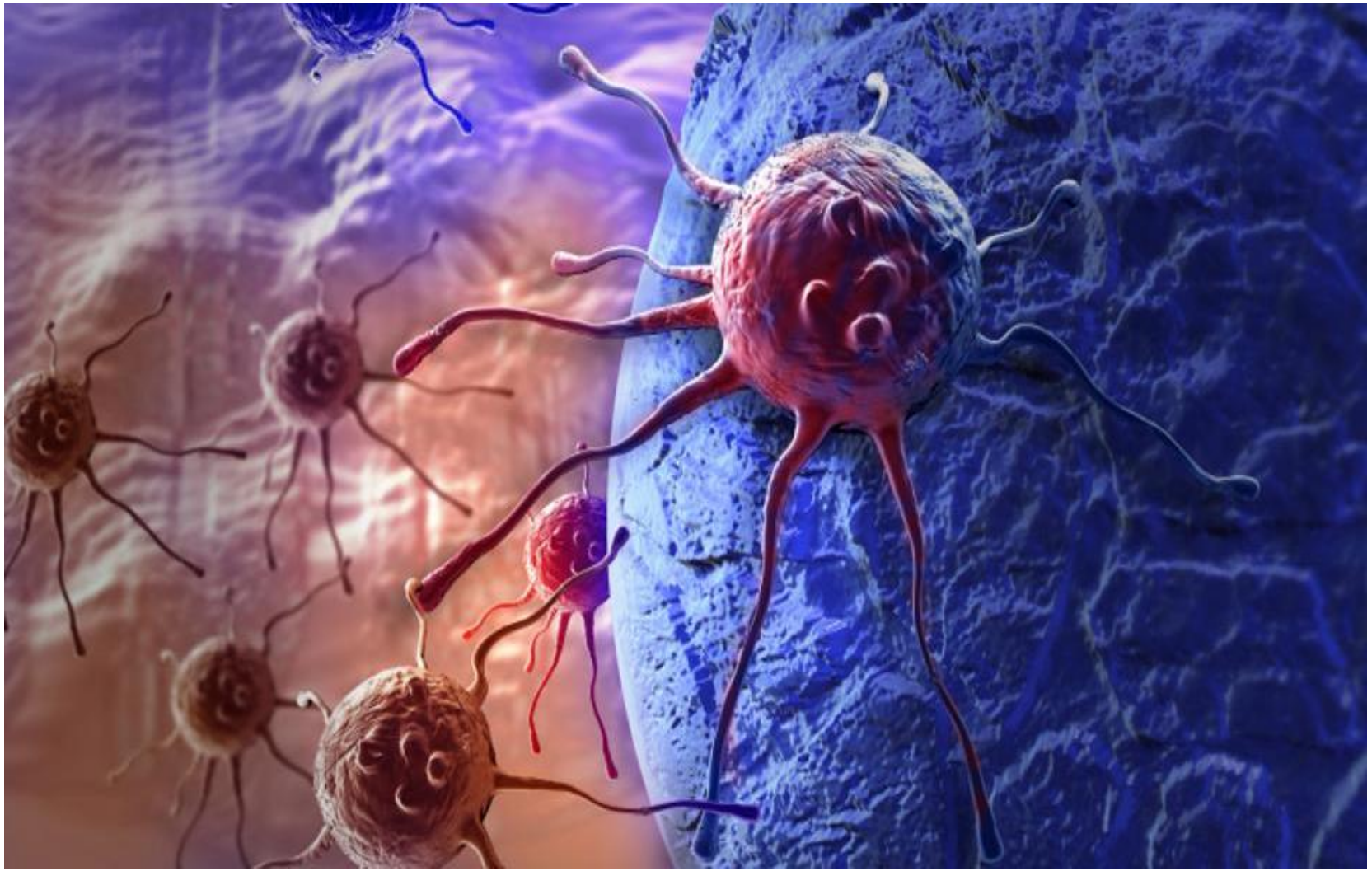
Precision Health: A One Stop Shop



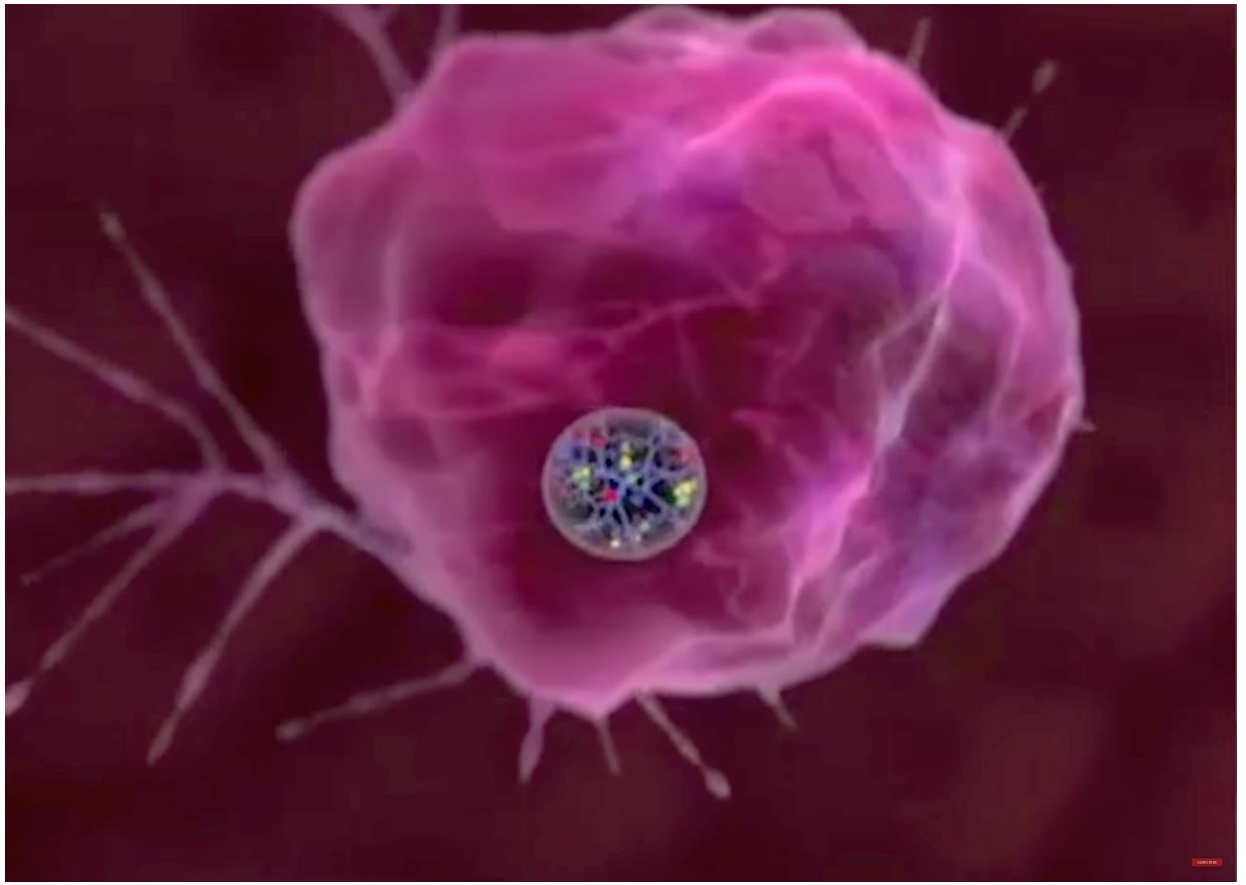
Biosensor Technologies



Immunotherapies



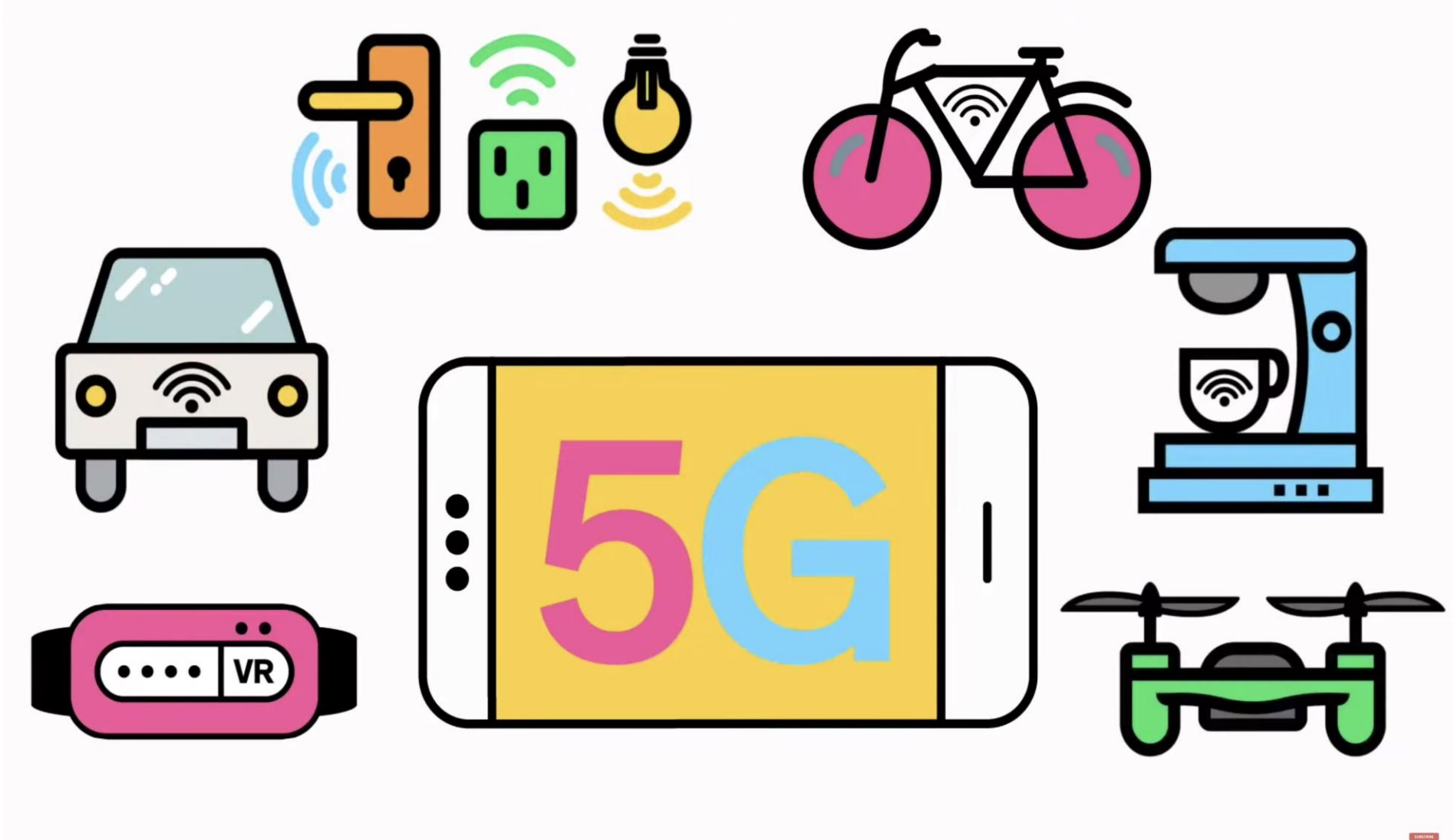
Nano-Particles and Nano-Medicine



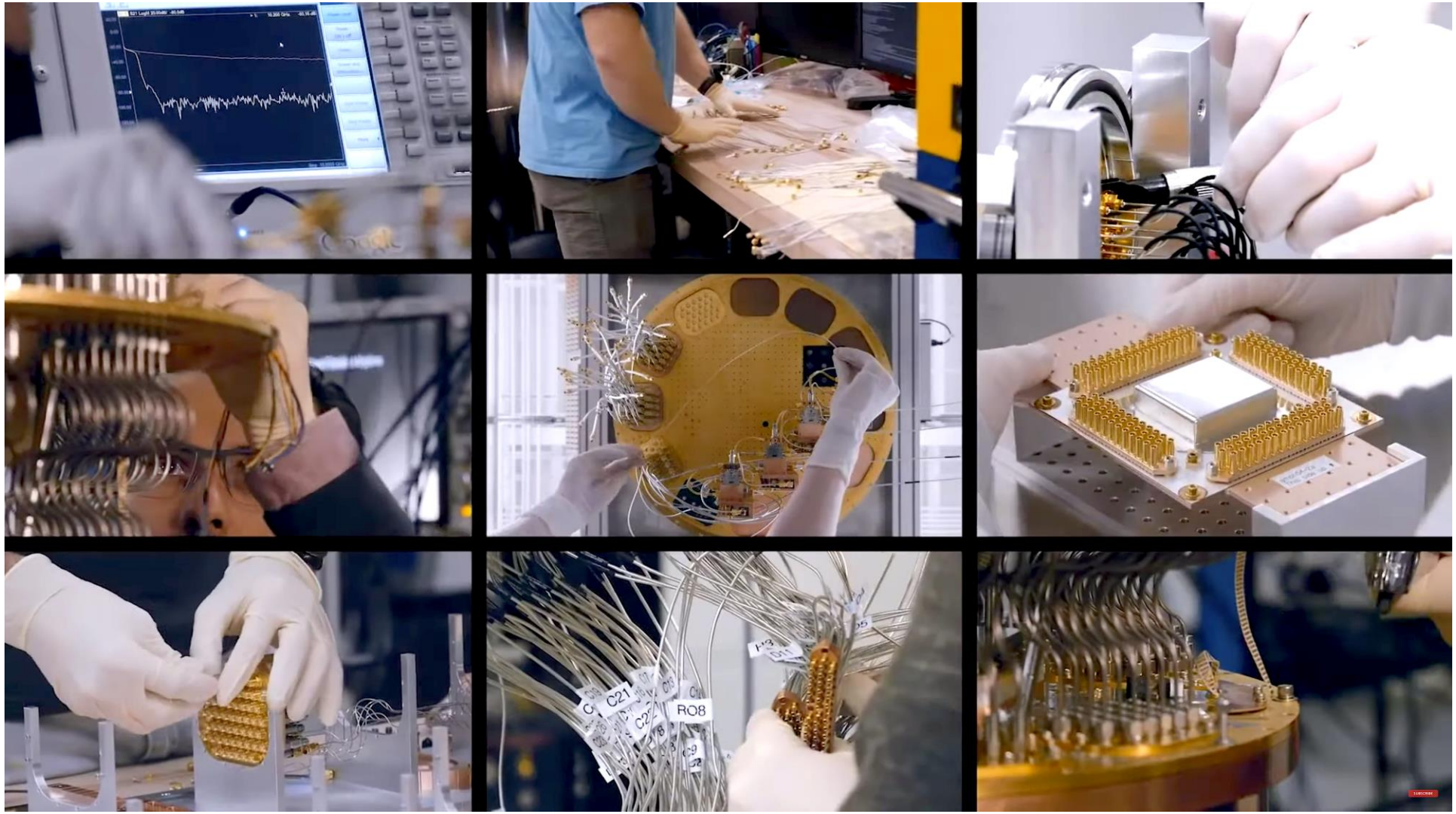
Genomics

CRISPR/Cas9 - a gene editing technique, can make targeted modifications to DNA accurately

Digital and Tele-Health



Quantum and Cloud Computing



Remote Diagnostic and Surgeries

3-D Printing of Tools and Tissues

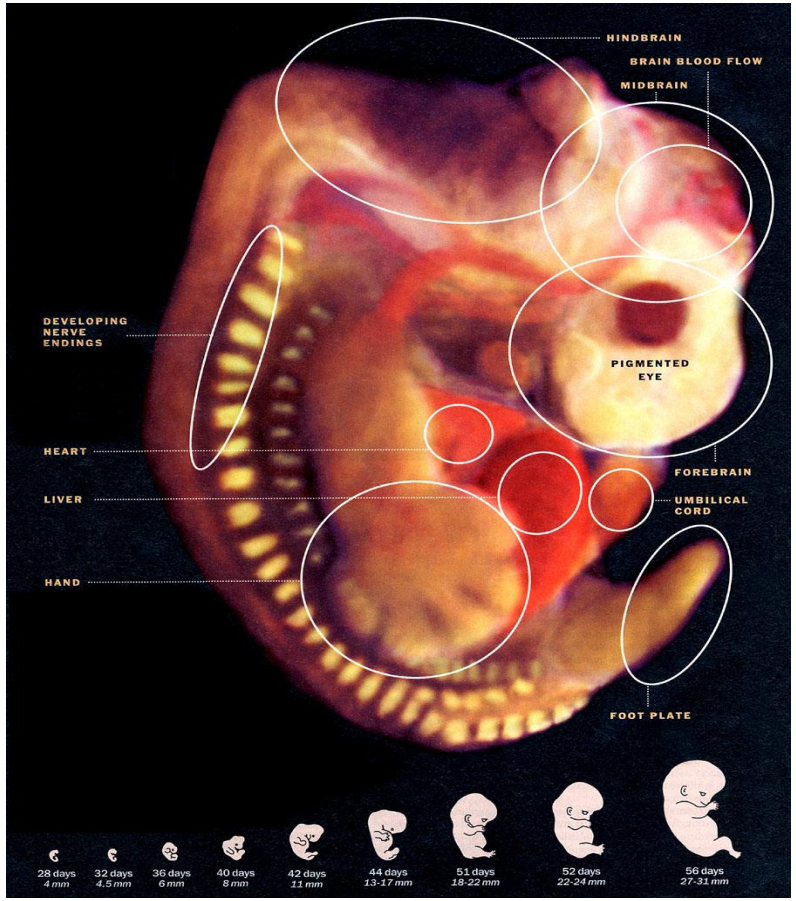
Artificial Intelligence and Machine Learning

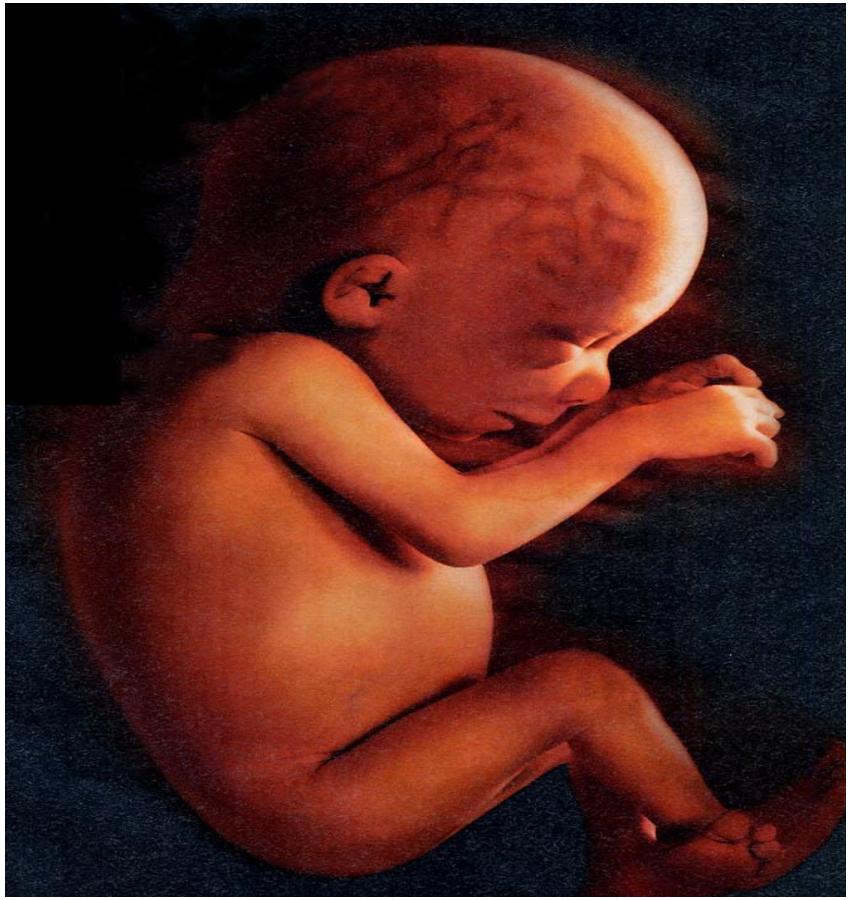
Virtual Reality

Robots Make an Entry into Hospitals

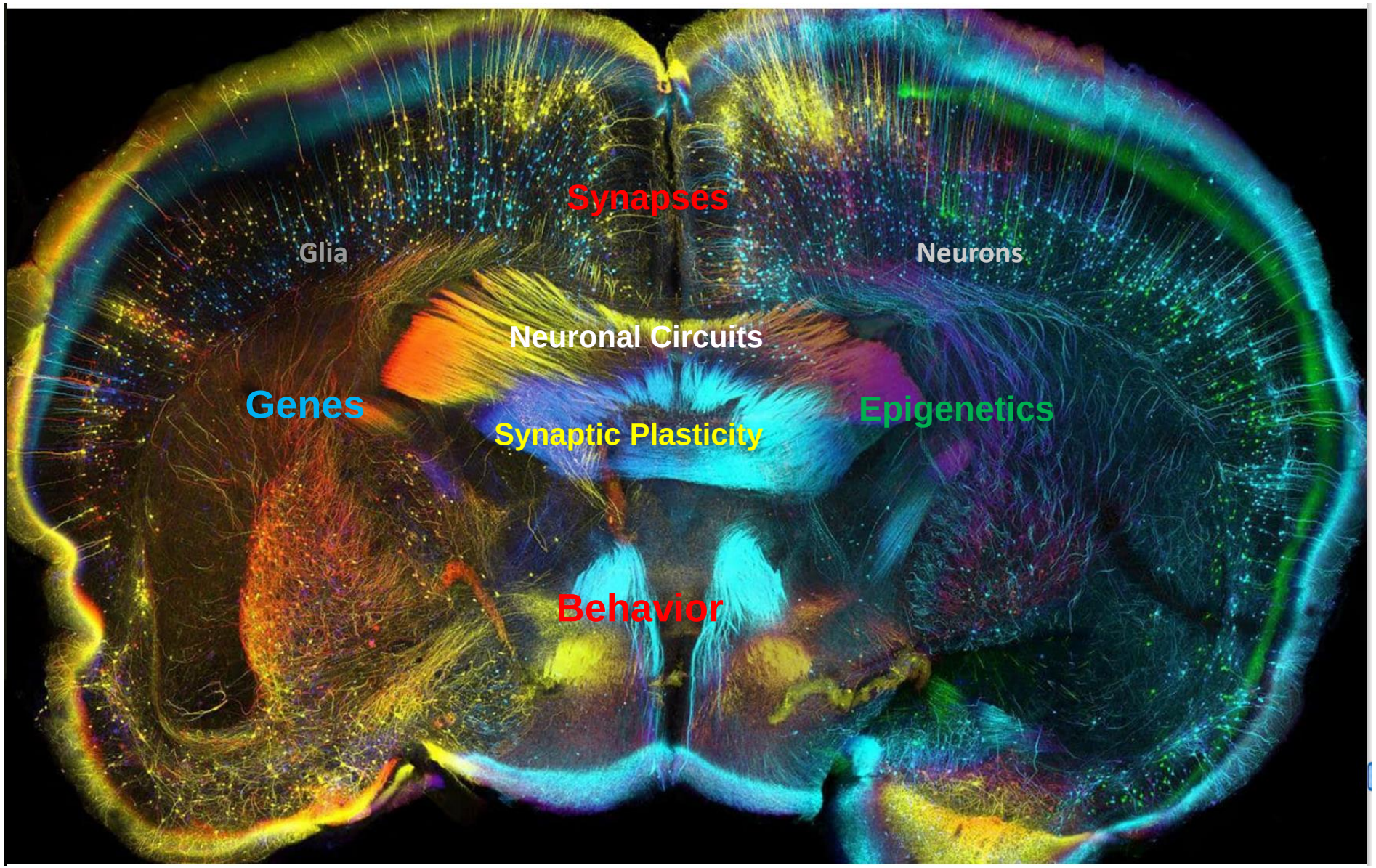
Brain Chip and Brain Computer Interfacing

Maternal Stress, Fear Anxiety Can all affect a Developing Baby

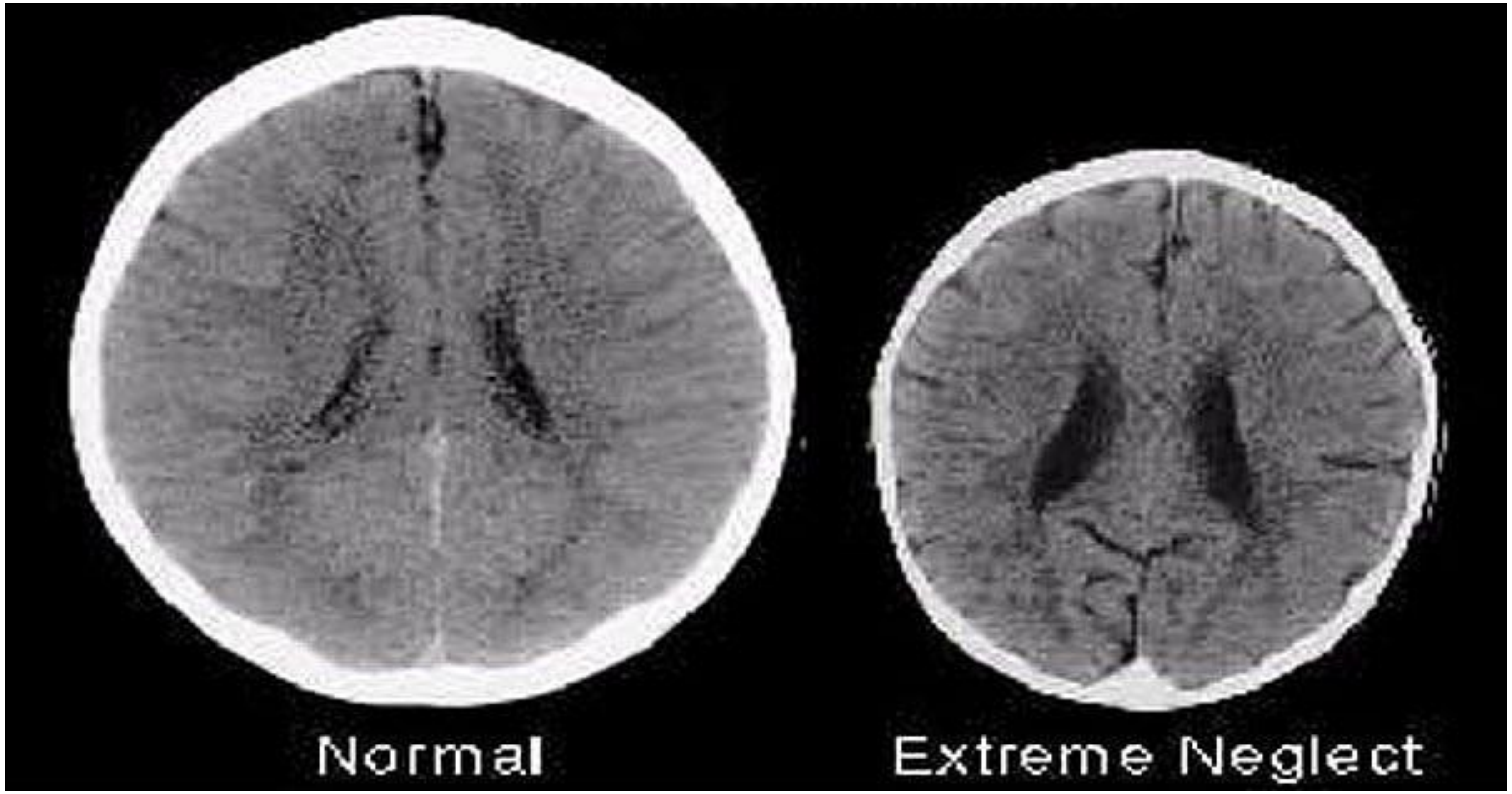




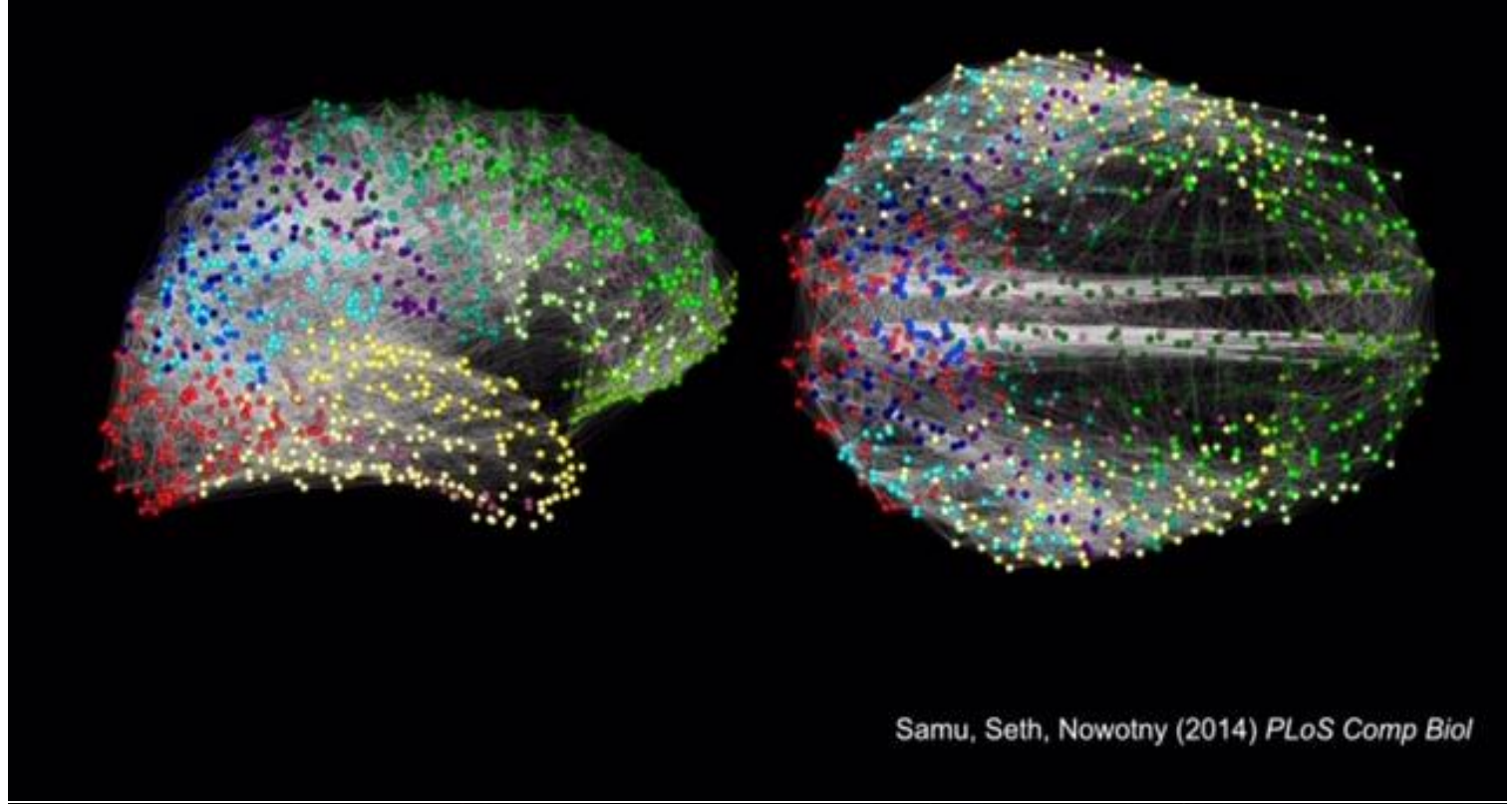
Neurons to Circuits to Behavior



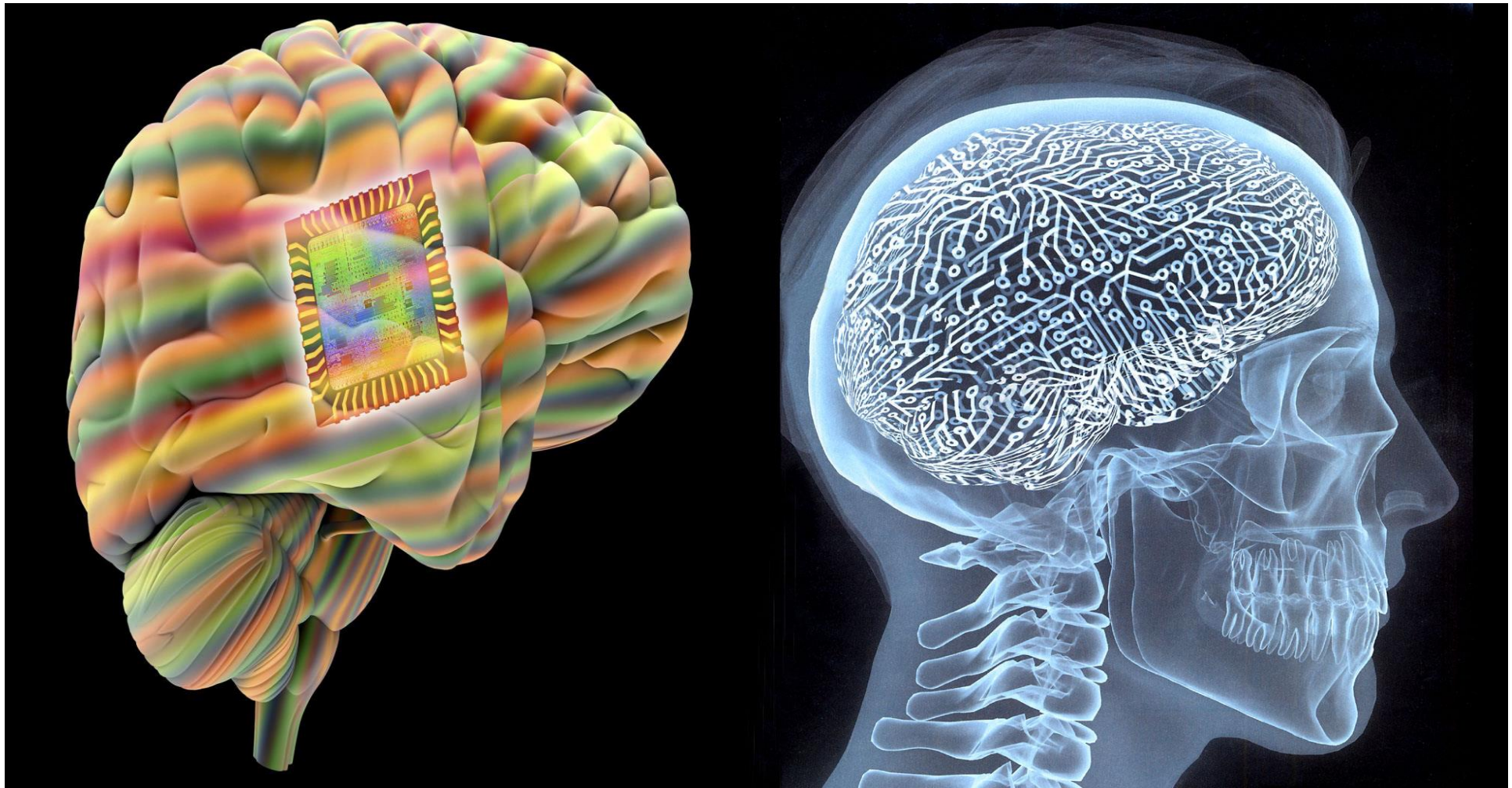
What is the impact of Long-Term Stress and Distress on a Child's Brain?



Things can be reversed if caught early – with love and compassion, enrichment


Samu, Seth, Nowotny (2014) *PLoS Comp Biol*

Disruptive Technologies based on Artificial Intelligence and Machine Learning will be Transformative



“We are natural-born cyborgs”

Andy Clark

Brain plasticity allows us to attach ourselves to machines, such as computers and electronic tools – quite naturally.

Our brain:

- Reconfigures itself in response to input from the simplest tools that we use routinely.

- Is far more open system than we ever imagined.

- Survives in a changing world by changing itself.

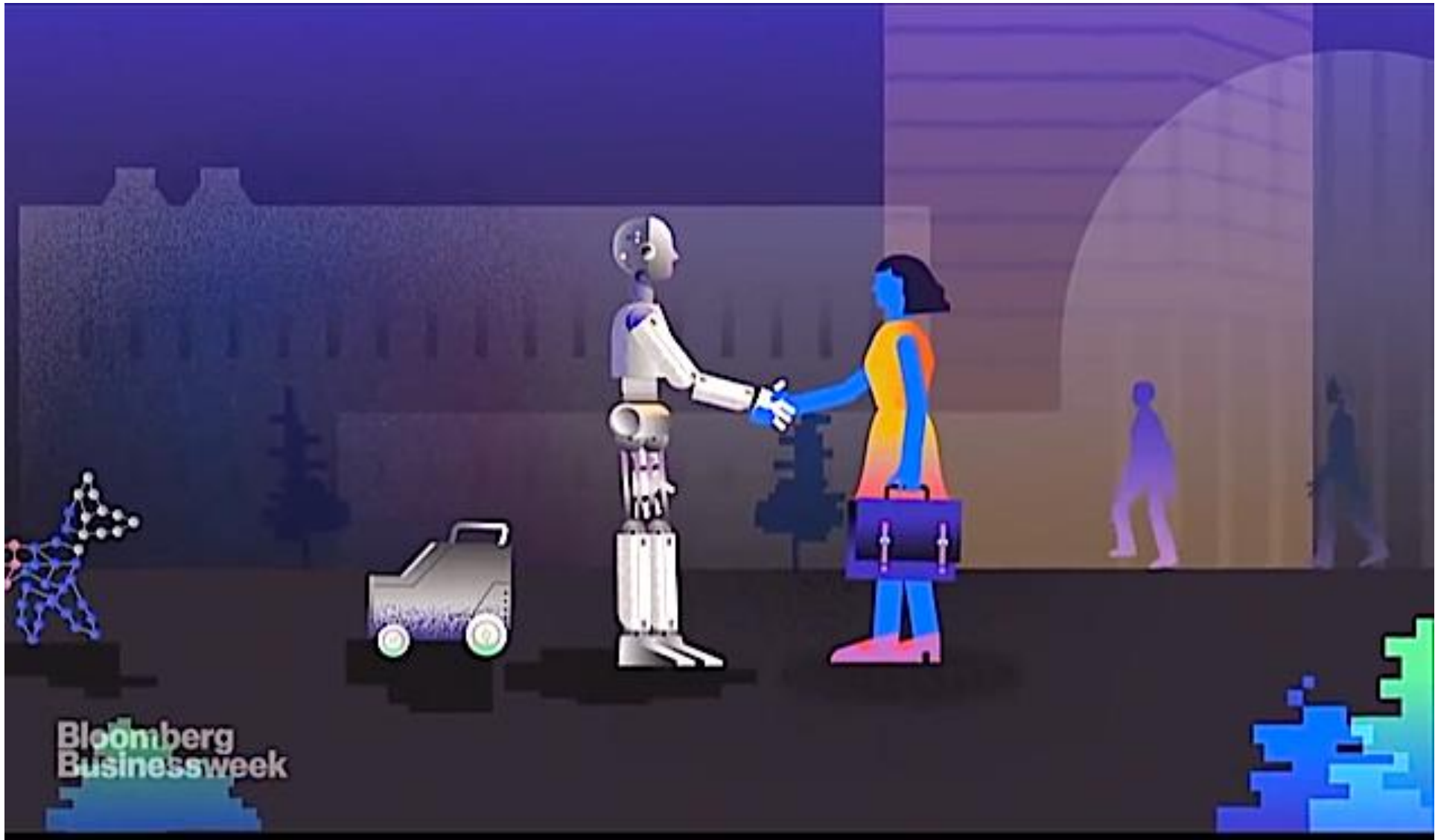
The Brain-Machine Interface
“Action and Imagination”

- Brain scans show that in action and imagination many of the same parts of the brain are activated – “visualization can improve performance”.

- Thought translation machine taps into motor program in a person or animal imagining an act, decode the distinctive electrical command to a device that puts the thought into action.


The Singularity

Super Intelligent AI

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