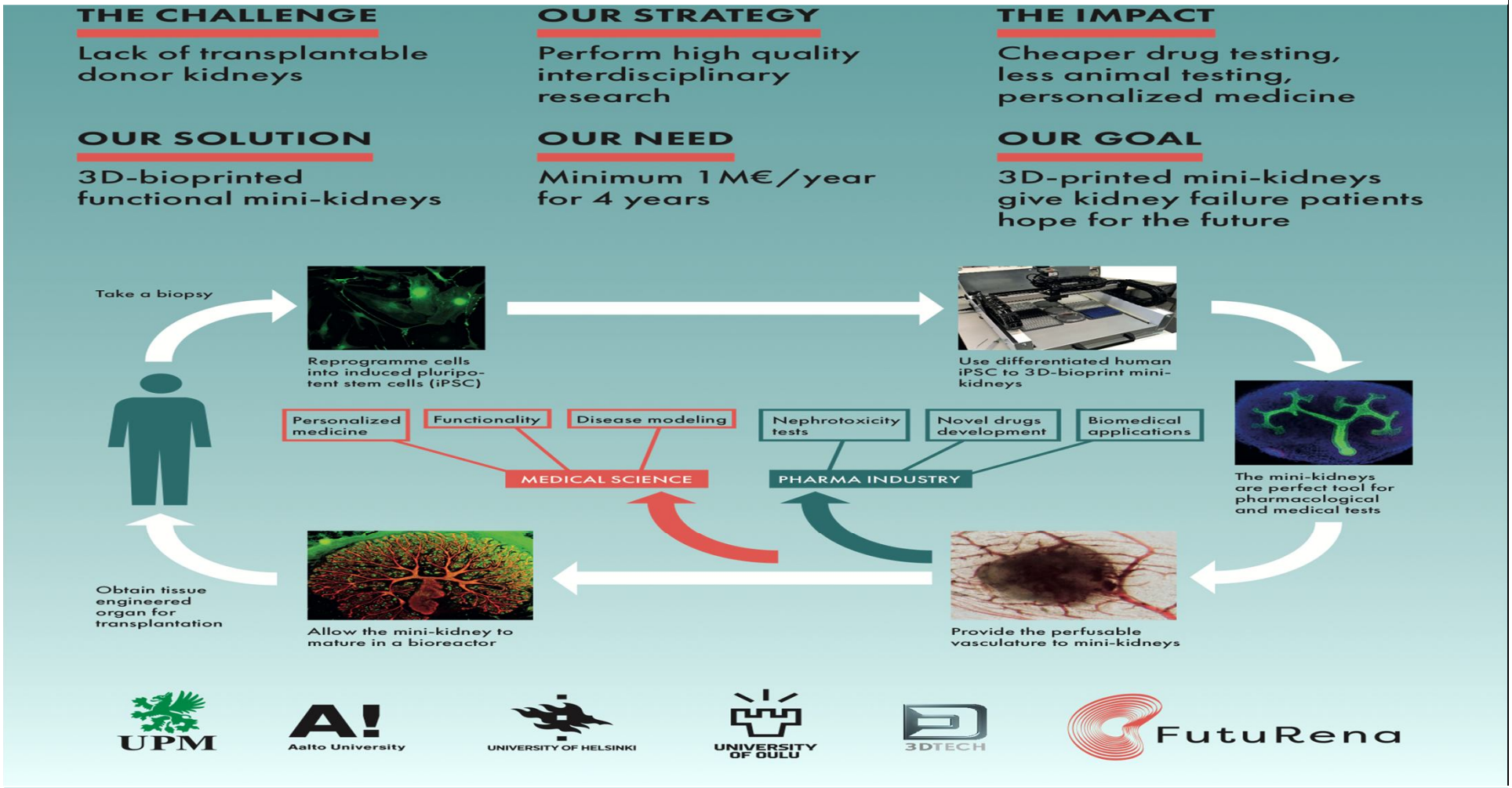
Prof. Seppo Vainio, Research Interests to

1) Study organogenesis and its diseases (*kidney here as example of the tech capasities*)
2) Develop strategies for novel non invasive biosensors
3) Advance the ”nanocommunication” concept for brain functional monitoring and therapy



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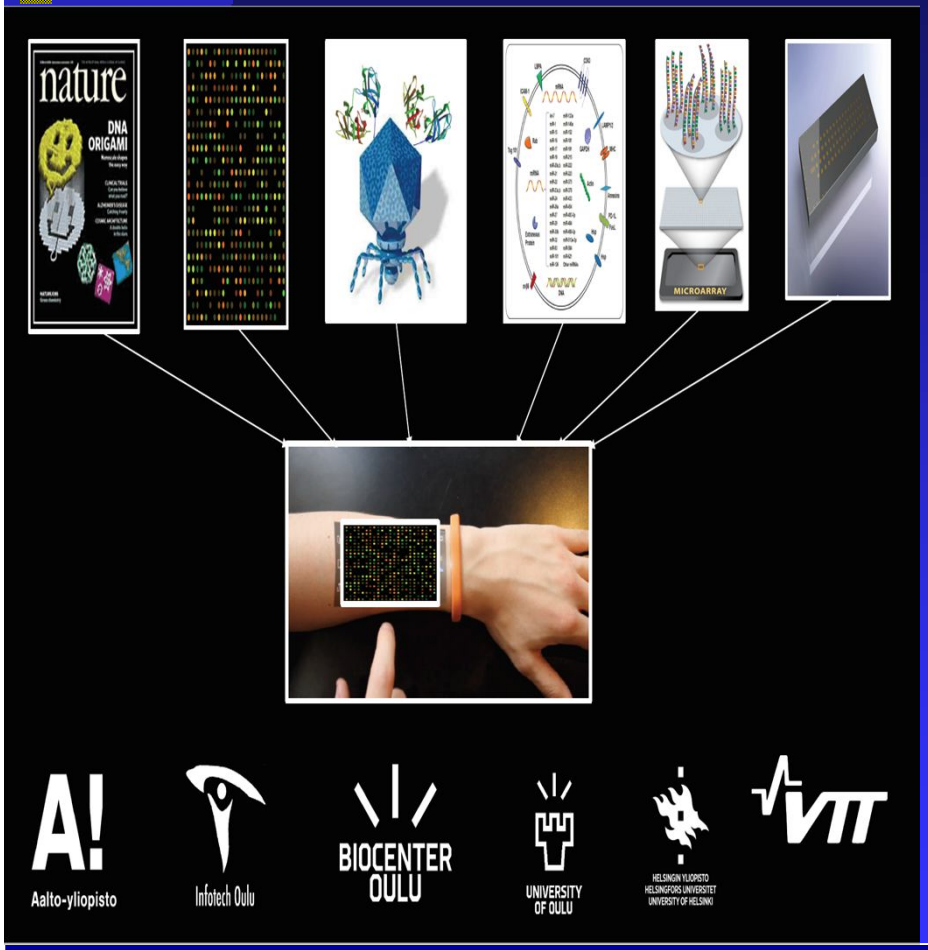
Prof. Seppo Vainio – Research Interests:

1) "*Mirror of Life*" Biocensor concept
2) Nanocommuniation strategy



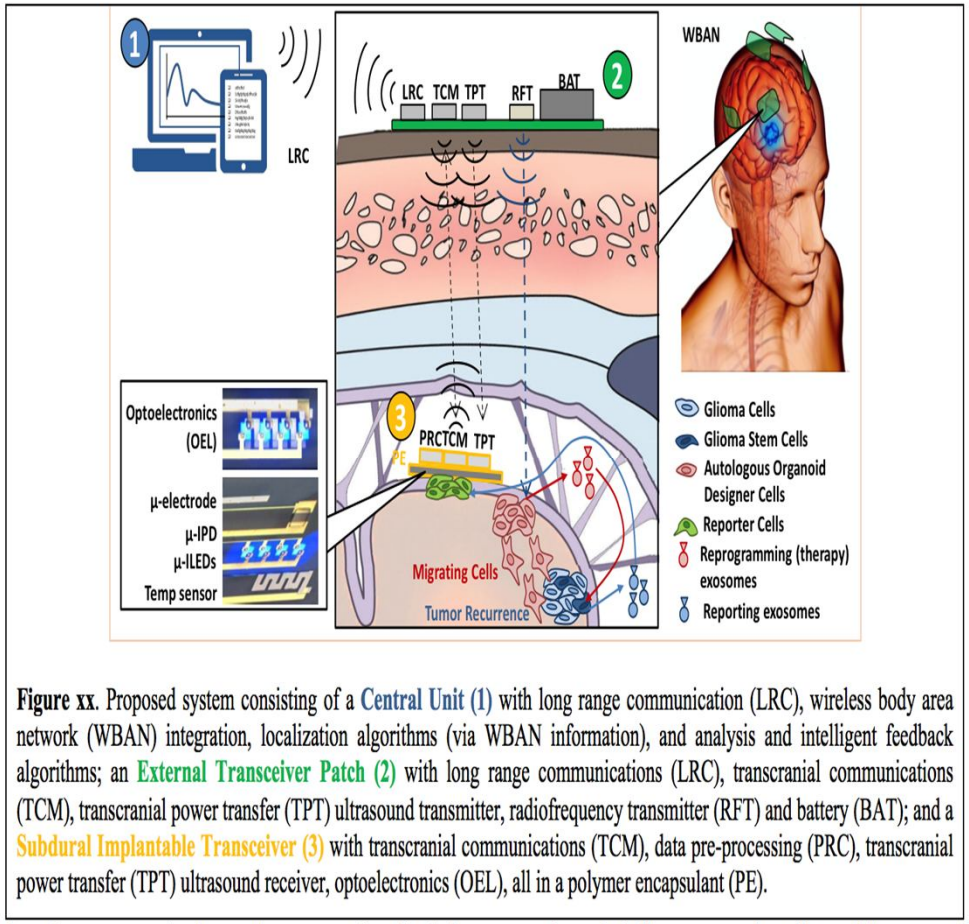


Figure xx. Proposed system consisting of a Central Unit (1) with long range communication (LRC), wireless body area network (WBAN) integration, localization algorithms (via WBAN information), and analysis and intelligent feedback algorithms; an External Transceiver Patch (2) with long range communications (LRC), transcranial communications (TCM), transcranial power transfer (TPT) ultrasound transmitter, radiofrequency transmitter (RFT) and battery (BAT); and a Subdural Implantable Transceiver (3) with transcranial communications (TCM), data pre-processing (PRC), transcranial power transfer (TPT) ultrasound receiver, optoelectronics (OEL), all in a polymer encapsulant (PE).

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