Innovation Generation, Disruption and Exponential Technologies in Medical Imaging

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Healthcare in general and medical imaging in particular will change dramatically in the next 20 years with the emergence of artificial intelligence (including machine and deep learning), 3D printing, personalized diagnosis and therapies, shift from therapy to prevention, and many related delivery and economic changes. Huge opportunities are present in developed, emerging and developing nations, each with completely different needs and infrastructural environments, and with a completely different reimbursement system. The tutorial will prepare the attendees for the changes that will likely come up in the coming years and subsequently focus on recognizing the need for a change in our development and innovation process, that must focus on digitization and connectivity, small footprint, robustness, and low cost, and with that explore alternative financing methods. Due to the regulatory processes in place and the ever increasing complexity of getting products into the market there could also be lots of opportunities for reverse innovation. The lecture will also present the product and technology approach and some recent examples of the chair of catheter technologies and image guided therapies that focus on joint product developments between clinicians and engineers leading to the question of what are good versus bad value propositions for medical technology / imaging products? Following questions will be addressed:

– What actually is innovation and can meaningful innovation generation for healthcare products and services be learned?
– What are good versus bad value propositions for medical technology / imaging products?
– What likely impact will exponential technologies have on healthcare delivery / medical imaging in the next 20 years?
– What entrepreneurial opportunities will develop because of that and how do we prepare ourselves for that?
– What is reverse innovation and how can all benefit from that?