MultiScaleHuman Marie Curie Research training network

From imagination to knowledge visualization in multiscale human body: the quest for a unique model of the whole picture

- What are the main advantages of referring to a unique multiscale model in medicine?
- What is the added value?
- What are the main implications from the Computer Science point of view?
- Does knowledge formalization play an important role?
- What is the tradeoff between Open Data and Privacy



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- Need of a truly multidisciplinary approach .. MSH for training!
- Predictive patient-specific models, MaaS
 - Heart, muscles, anatomy, motion: what key aspects are missing?
 - When we may call a model a truly patient-specific one?
 - Generic body models: at which extent do we have such generic models?
- Measures of quality of the models, reproducibility, testing
 - How far we are from their use in real applications?
 - uncertainity
- Degree of automation in data processing and integration
 - Multimodality is essential: what are the challenges in integration/fusion)
 - Bottleneck: segmentation. What are the main issues here?



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- Technology: are there new acquisition devices modality could help getting "better" info?
 - PET-MRI, dynamics
 - CT, invasiveness
 - Tissues?
- Knowledge technologies and statistical analysis (ontology-based cloud computing)
 - What data? What features? What similarities?
 - Interomics, VPH, MSH