



Health Partnering Day 2016

7 July 2016, Brussels



Session 2: Health-related topics (ICT, SSH, Food Security)



Heart Attack and Cardiac Ischemia Prognosis

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- **Main focus of the project :**
 - Risk assessment of heart attack and prediction on the development of heart failure post-infarction by selection of relevant medical imaging and omics markers.
- **Our expertise : INSA Lyon – CREATIS Research Institute (FRANCE)**
 - Biomedical imaging research laboratory (~200 persons),
 - Identification of major health issues that can be addressed by imaging,
 - Identification of theoretical barriers in biomedical imaging related to image processing and numerical simulation,
 - Multidisciplinary approach (6 research teams interacting in ICT, engineering and life sciences).
- **PI : Guy Courbebaisse**
 - Senior project leader / European scientific researcher : ICT - Material - Numerical Simulation,
 - PI and Scientific Coordinator: FP7 ICT project 'THROMBUS' (Quantitative model of thrombosis in intracranial aneurysms) <http://www.thrombus-vph.eu> (2011 - 2014),
 - Member of the VPH Institute <http://www.vph-institute.org/>,
 - NIH-NSF-ANR and H2020 scientific expert.

Topic

- **Possible topic:** SC1-PM-17-2017 - Personalised computer models and in-silico systems for well-being.
- **Personalised Medicine project:** Personalised risk assessment by discovering the relevant medical imaging and omics markers linked to the mechanical properties of the heart.
- **Partnership:** Academic research lab. for ICT, modelling of the heart and decision support system - Medical partners.
- **Requirement for additional partners:** Medical & Biology partners, SSH partners and European Infrastructure.
- **Keywords:** Multi-endpoint study, multiscale modelling, data learning system, medical imaging and omics markers, multimodality imaging...



Additional information



- **Multidisciplinary project and multidisciplinary partners,**
- **Heart researcher and Medical Doctor at CREATIS:** Patrick Clarysse, Pierre Croisille.
- **Pipeline of applications :** from medical imaging to personalised diagnosis,
- **Decision Support System and User Service Module** for Medical Doctors and Researchers via a web interface,
- **Multi-Endpoint Study,**
- **Coupling of data:**
 - multi-modality medical imaging data,
 - medical imaging and omics markers,
 - multiscale modelling and numerical simulation,
 - biological mechanisms.



Contact details



Thank you!

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<http://www.creatis.insa-lyon.fr/~courbebaisse>

<http://www.thrombus-vph.eu>