

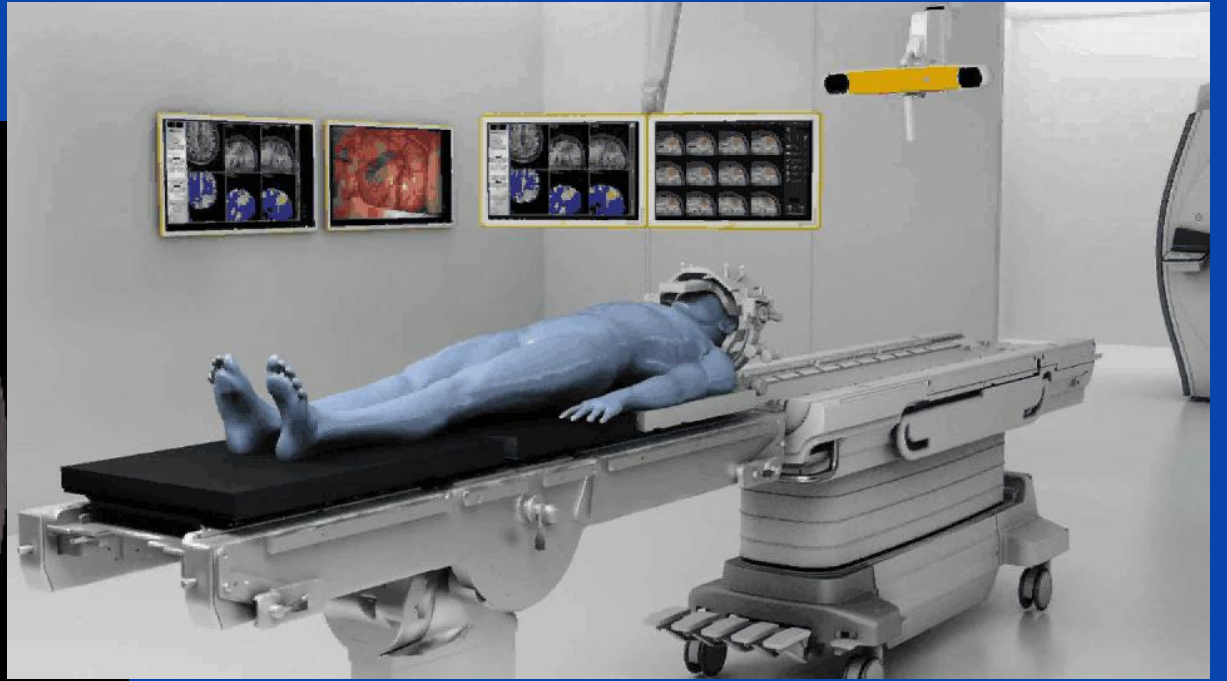
MR-Guided Intervention & Therapy on the GE MR Platform

Aaron Flammang
Product Manager – 1.5T and software
Jan. 28, 2016

Interventional CMR Workshop
Los Angeles

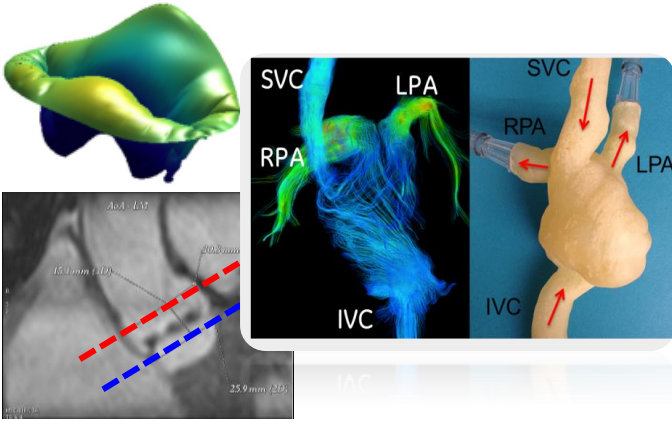


GE MR Surgical Suite



2-room Suite
Installed Base of 30+

Role of MR in CMR Intervention / Therapy



Triage & Pre-Therapy Planning

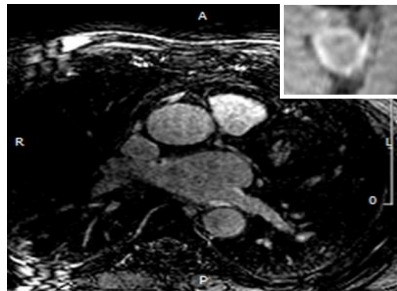
- MR sequences to assess anatomy, function, flow, lesions
- Patient-specific surgical planning, e.g. mitral valve, TAVI
- 3D Printing from High-Res 3D MR

Procedural Image Guidance

- Real-time catheter tracking
- Therapy Monitoring: Thermometry, T1/T2 Mapping, Late Enh

Post-Therapy Follow-up

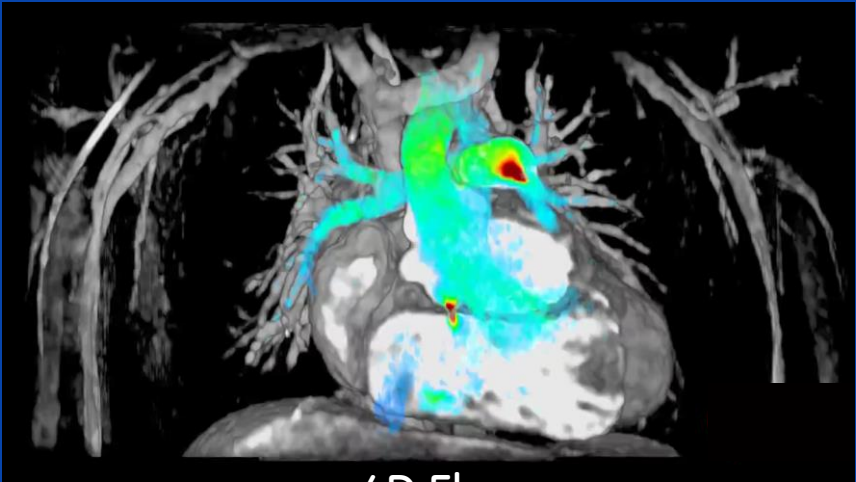
- MR sequences to assess therapy & guide medical treatment



Courtesy: University of Wisconsin, Centro Cardiologico Monzino, Sunnybrook Research Institute, Saint-Luke's Mid America Heart and Vascular Institute

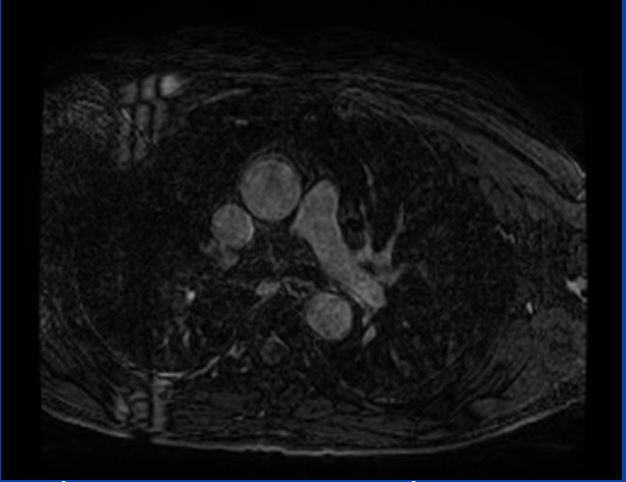
New Application Development Relevant to Cardiac MR-Guided Therapy

ViosWorks



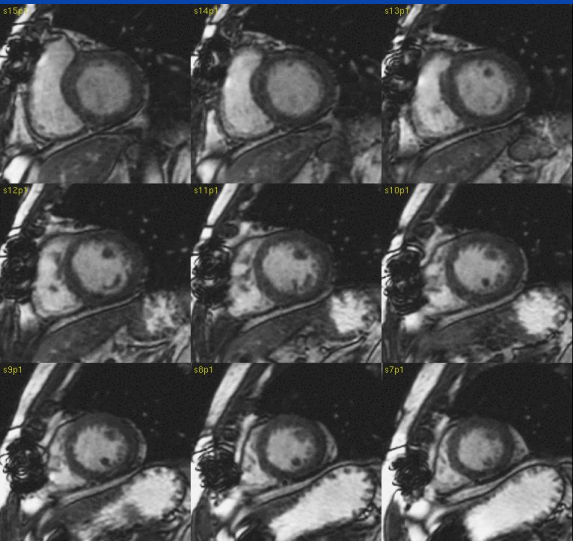
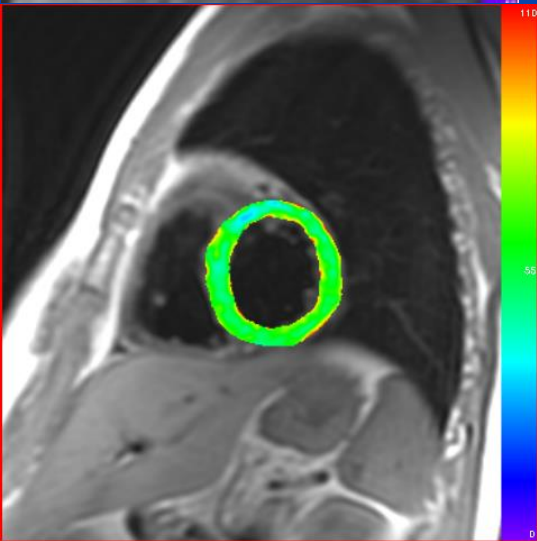
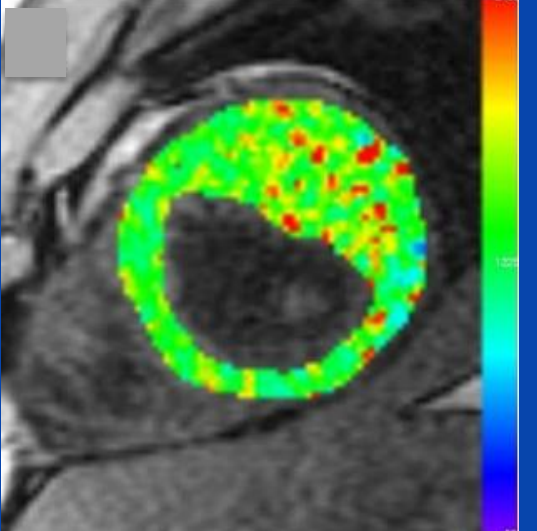
4D Flow

Delayed Enhancement

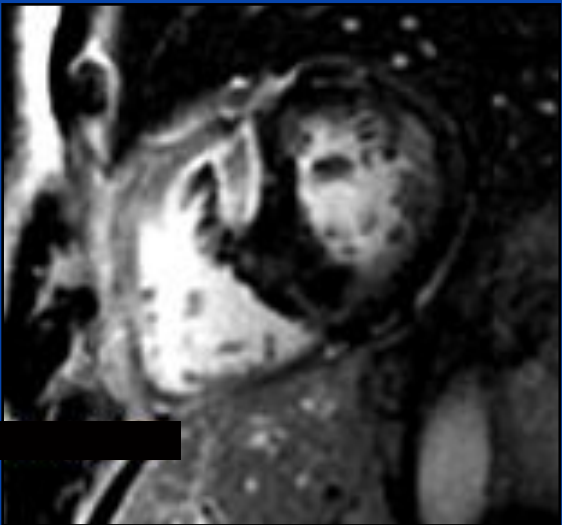


High-Res 3D Late Enhancement

T1 & T2 Mapping



3D Cine



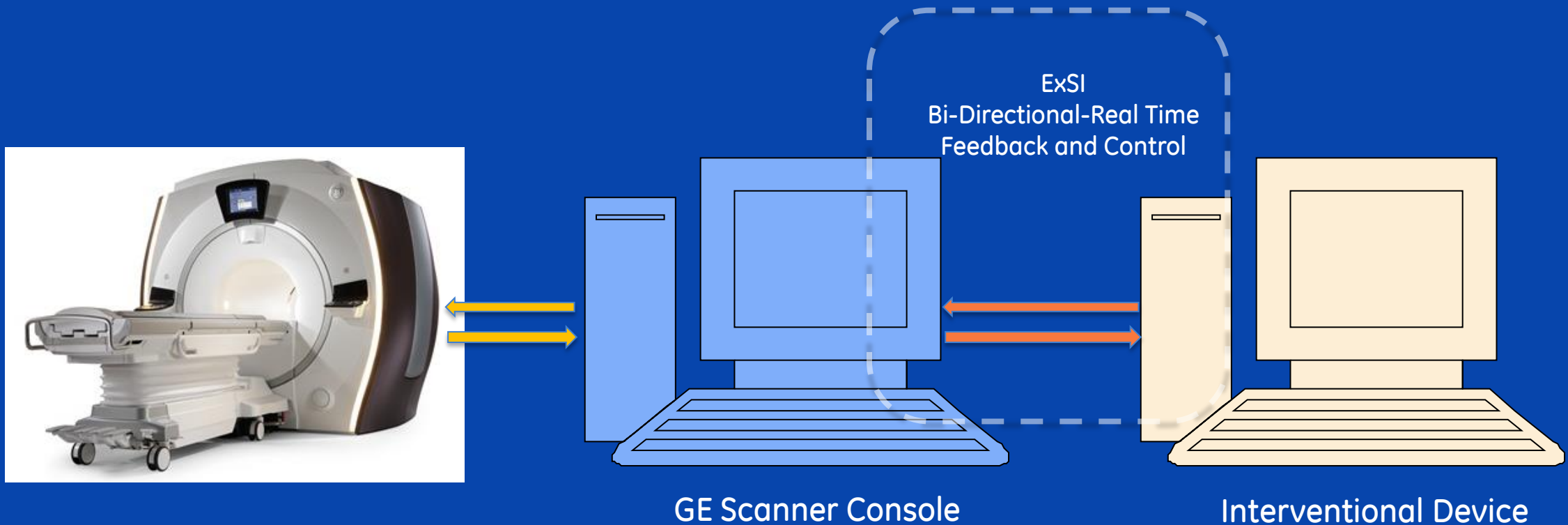
Robust Single Shot MDE



Technology in development that represents ongoing research and development efforts. These technologies are not products and may never become products. Not for sale. Not CE marked. Not cleared, approved or authorized by the U.S. FDA or other national regulatory authorities for commercial availability.

New Application Development Relevant to Cardiac MR-Guided Therapy

External Scan Interface - ExSI



- Enables remote real-time control for third parties using standard interfaces



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GE Interventional MR Collaborators

Academic Site	Project
Sunnybrook	Cardiac EP: RT guidance, visualization,
University of Dundee	In-room scan control
Stanford	Needle tracking; MR thermometry
UCSF, Zurich Kinderspital	MRgFUS
University of Wisconsin	Peripheral vascular catheter
Robarts	Cardiovascular catheter tracking
Industry	
HeartVista	Real-time scan control
InseRT MR	Software for device control
InSightec	MRgFUS technology



