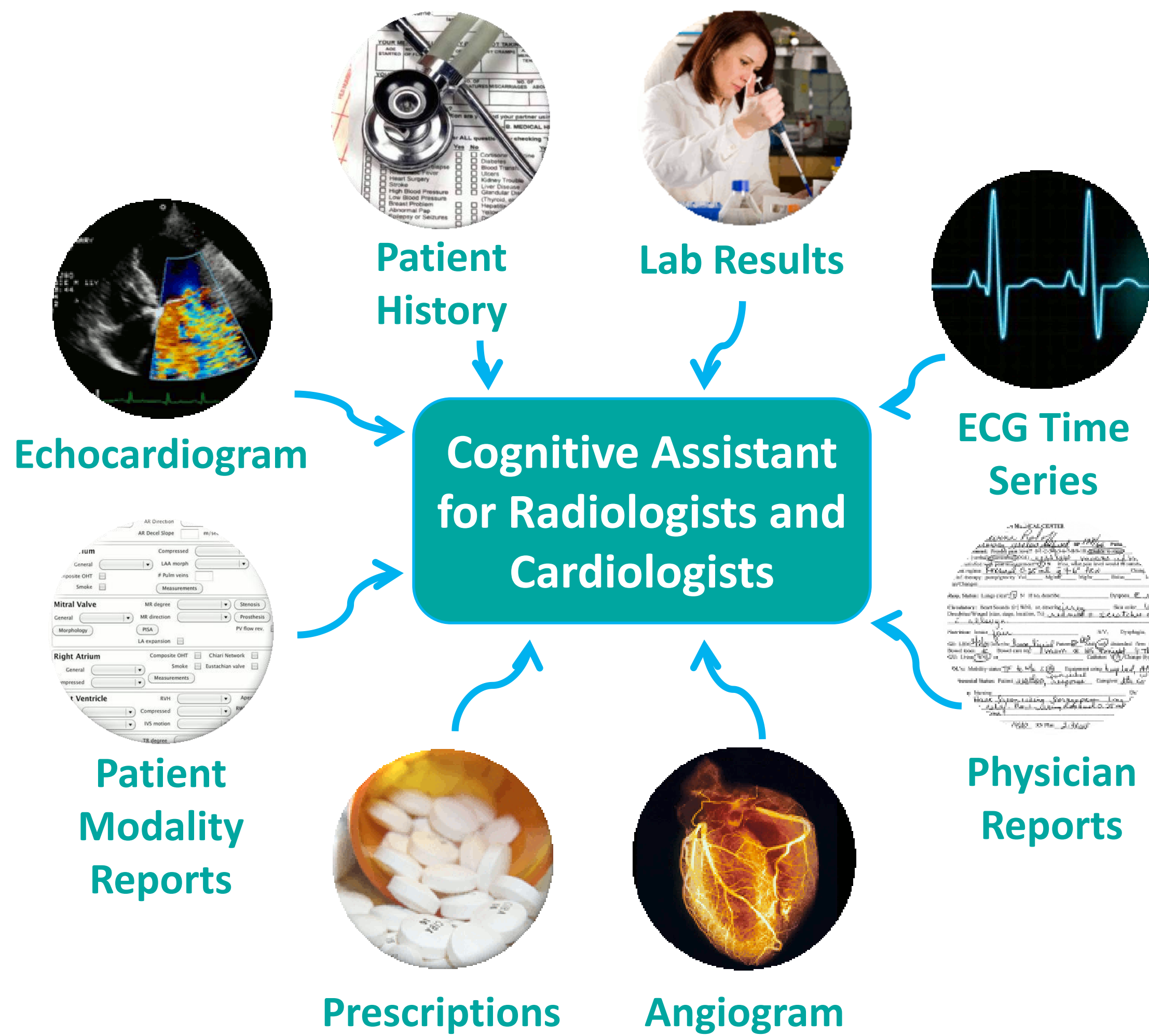


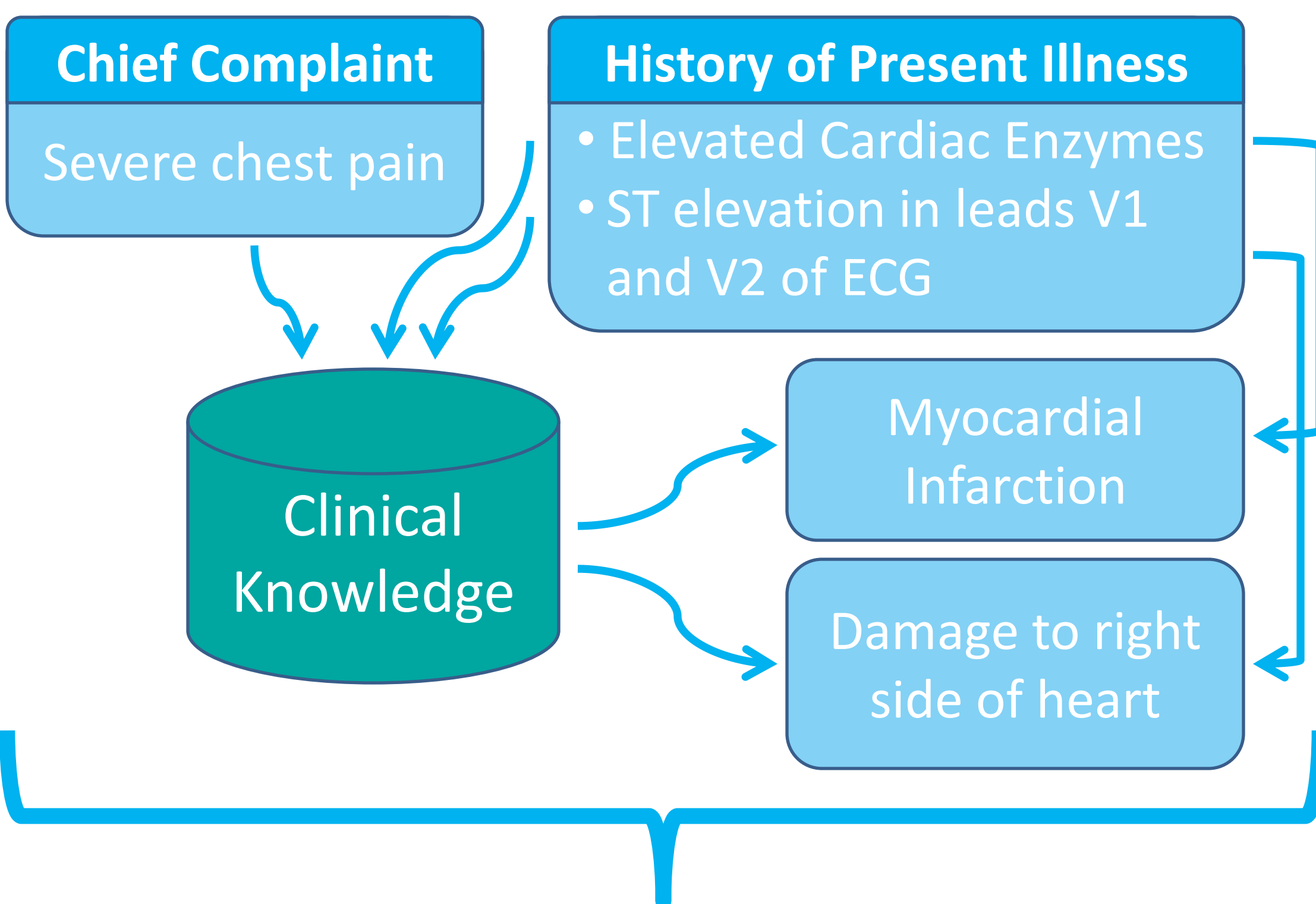
Compas C., Syeda-Mahmood T., McNeillie P., Beymer D.
IBM Research – Almaden, San Jose, CA, USA

The Medical Sieve is a worldwide IBM research Grand Challenge Project. It is a collaboration between groups in San Jose CA, Haifa Israel, and Melbourne Australia. The aim of this ambitious project is to produce automated radiology and cardiology assistants to help clinicians in their diagnostic decision-making. Here we present an example of the system applied in the cardiac domain, with a focus on an image processing pipeline for stenosis detection in X-ray angiography.

Medical Sieve



Application Example: Cardiac Event

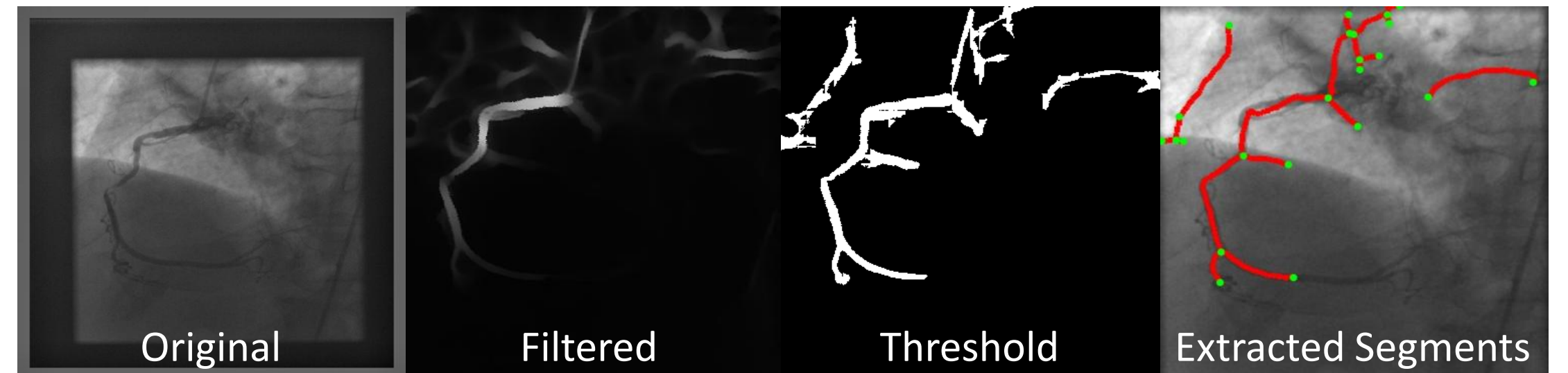


X-ray Coronary Angiography



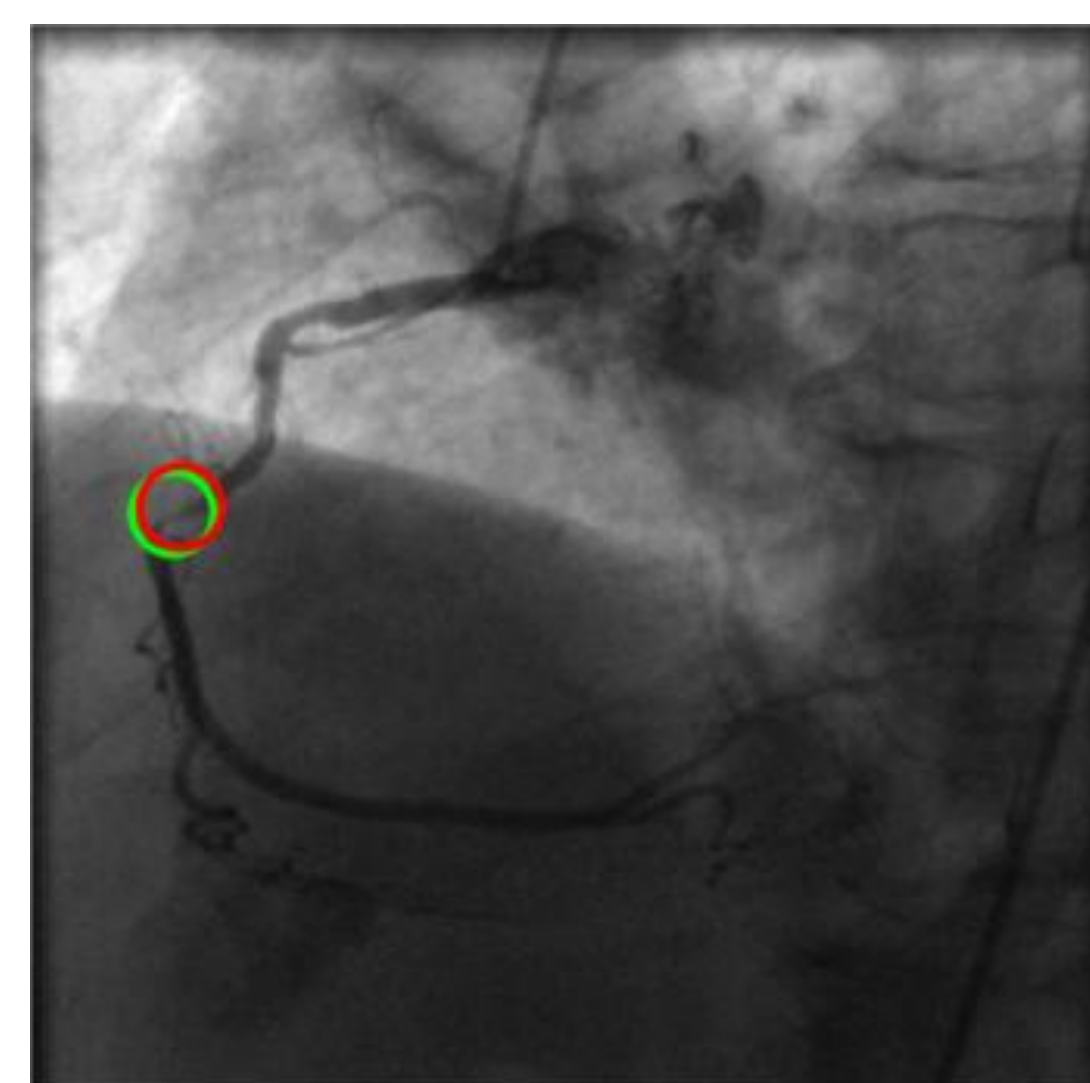
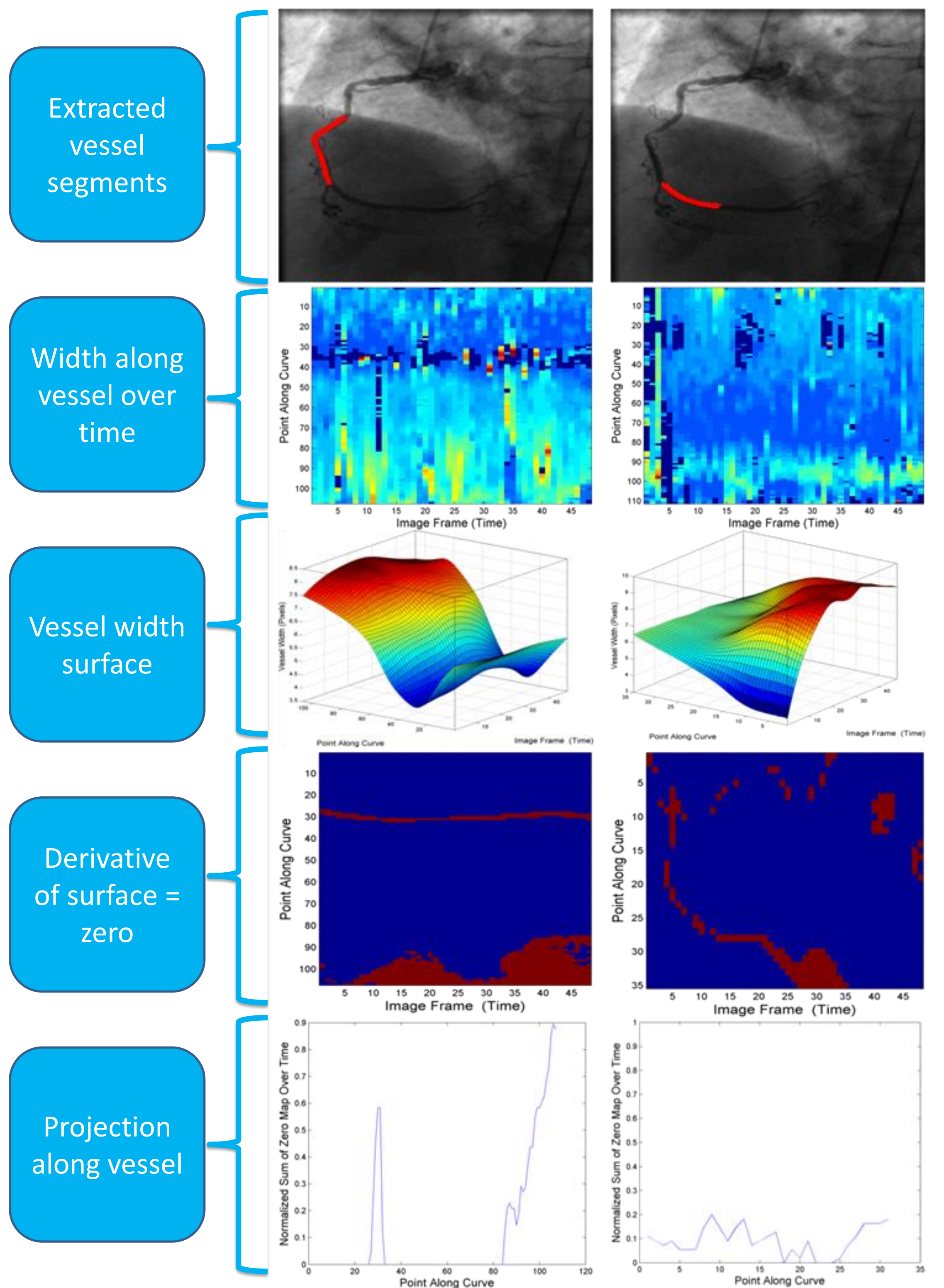
Image Processing

Vessel Extraction



Stenotic Vessel

Normal Vessel



Diagnosis

Mid-RCA
Stenosis