

My work in short:

Automated and Quantitative Image and Biological Data Analysis for Biomarker Estimation.

Main objective: Provide new tools for an early-detection of the disease
Work at ESAOTE in Maastricht (NL) and Genoa (I)



Me:

ESR 12 – Ilona Armengol Thijs

My background:

Engineer specialized in telecommunication systems
University La Salle – Ramon Llull, Barcelona, Spain

Buoys along the way

1. Plane wave imaging

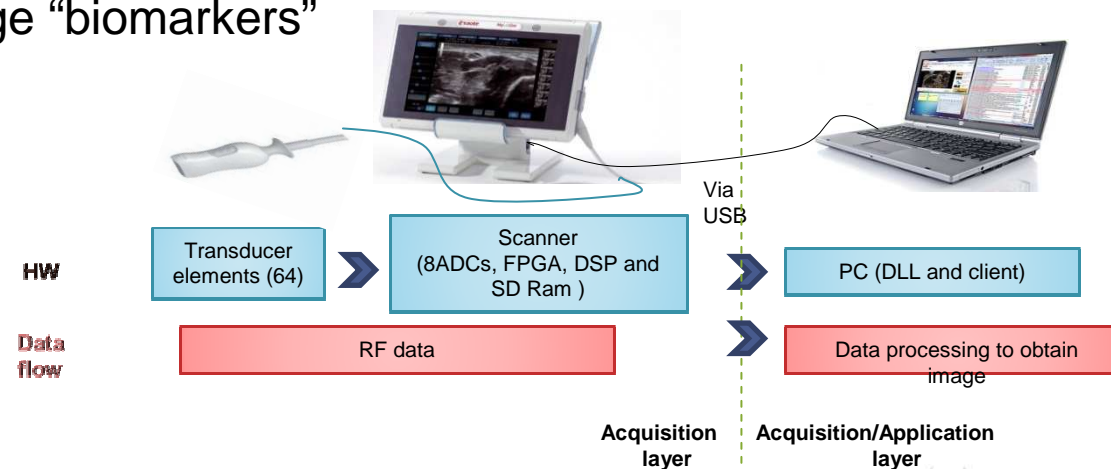
1. Research and implementation of plane wave **algorithms** with the plane wave system (MyLabOne)
2. Quantitative and qualitative **analysis** of resolution/sensitivity/computational efficiency of the obtained images vs. the traditional line-by-line images.

2. Ultrafast Doppler imaging

1. Research and implementation of Ultrafast Doppler **processing** and related **scanning protocols** (high time resolution Doppler)
2. Quantitative and qualitative **analysis** of time resolution/sensitivity of the obtained images vs. the traditional line-by-line images.

3. In-vitro and in-vivo validation of points 1 and 2

4. Provide image “biomarkers”



Planned training

Type of course	Date of the event	Name of the event	Place of the event
Specific training	21- 25 July 2013	IEEE International Ultrasonics Symposium	Prague (Czech Republic)
	24-27 September 2013	Cuda training	Frankfurt (Germany)
	17- 22 October 2013	The programming language C++	Utrecht (The Netherlands)
	22-24 January 2014	Advanced C++	Eindhoven (The Netherlands)
	24-27 March 2014	GPU technology conference	San Jose, California (United States)
	28 April – 2 MaY	IEEE International Symposium on Biomedical Imaging	Beijing, (China)
	3-6 September 2014	IEEE International Ultrasonics Symposium	Chicago (United States)
Research training workshops	----	RT4 – Multimodal small animal imaging	WWU (EIMI), Esaote, IGG
	----	RT5 – Ultrasound and MR Imaging	Esaote, Camelot
	----	RT6 – Trial design and bioinformatics	IGG
	----	Biology and inflammatory diseases starter courses	---
Complementary Skill Courses	----	CS1 – Grant writing weekend	Tulips
	11 - 17th May 2014	CS2 – Group dynamics CS3 – Research ethics and integrity CS4 – Effective Communication CS5 – Presentation skills	EUREKA 7 days workshop
	----	CS6 – Research project management	EUREKA
	----	CS7 – Valorization of results and IP rights	EUREKA
	----	CS8 – Entrepreneurship in(bio)medical sciences	EUREKA
		Italian language	Euregio language services, Kerkrade(The Netherlands)

- Contact fellows who are working with UltraSound imaging technologies and who's background is medical. Visiting them at their locations to gain knowledge.
- Contacting fellows who are interested in the development of plane wave UltraSound imaging and in my project in particular.