

Partners

Partner	Country	Lead Scientist
	 Italy	Emanuele Cozzi (AOP)
	 France	Sophie Brouard (INSERM)
	 France	Jean-Christian Roussel (CHU)
	 Spain	Rafael Mañez Manuel Galiñanes (ICS)
	 Spain	Cristina Costa (IDIBELL)
	 UK	Yasuhiro Takeuchi (UCL)
	 Israel	Vered Padler-Karavani (TAU)
	 Sweden	Michael Breimer (UGOT)
	 Italy	Cesare Galli (AVT)
	 Spain	Marta Pascual Gilabert (IUCT)
	 Italy	Gino Gerosa (UNIPD)
	 Spain	Alfons Nonell-Canals (MtB)
	 USA	Xi Chen (UCAL)

TransLink Factsheet

Project full Title:

TransLink, Defining the role of xeno-directed and autoimmune events in patients receiving animal-derived bioprosthetic heart valves is an FP7 Collaborative Project.

Topics addressed:

HEALTH.2013.1.3-2: Innovative approaches to address adverse immune reactions to biomedical devices, implants and transplant tissues

Project coordinator:

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Project Duration:

1st September 2013- 31st August 2017

Project Budget:

€ 7,949,030

EU funding:

€ 5,996,971

Partners:

6 academic research organisations
(INSERM, IDIBELL, UCL, TAU, UGOT, UCAL)

4 hospitals and/or clinical practitioners
(AOP, CHU, ICS and UNIPD)

3 small and medium enterprises
(AVT, IUCT and MtB)

TransLink

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About TransLink

Each year, approximately 400,000 patients worldwide require heart valve replacement after a failure of their own valve. In this context, Bioprosthetic Heart Valves (BHV) represent the best treatment option. However, the use of BHV is exclusively restricted to elderly patients as, in young subjects, these undergo premature failure.

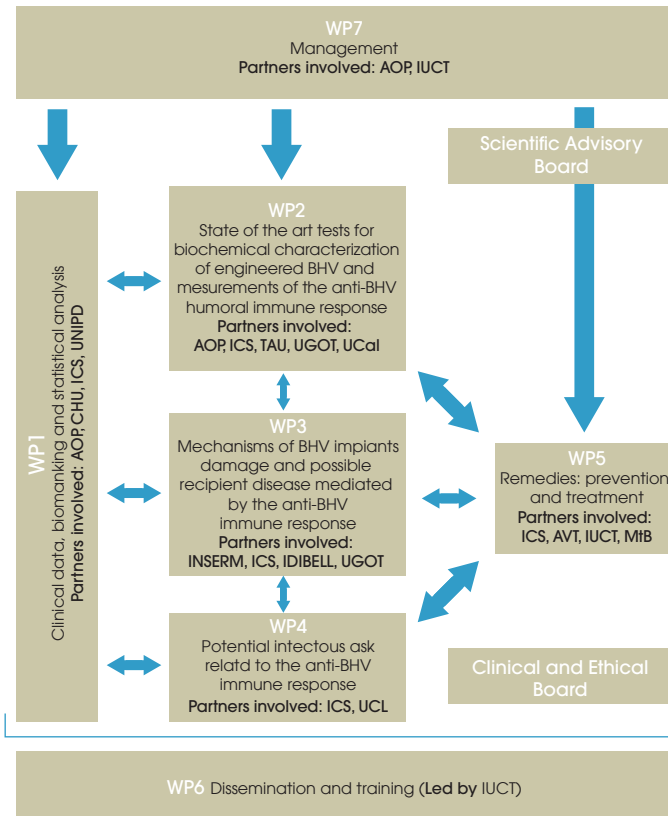
Concept and Objectives



TransLink proposes a prospective clinical and biological observational study of an international multicentre cohort of patients (over 3,000 BHV recipients and matched controls) recruited in four large EU centres of cardiac surgery. TransLink's objectives are the following:

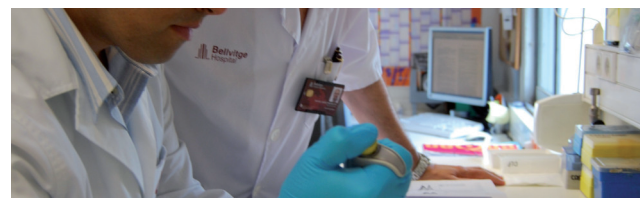
- To characterize the nature and the magnitude of humoral anti-BHV immune response and determine the coparticipation of the natural cellular immune response following BHV implantation.
- To correlate the magnitude and quality of the anti-BHV immune response with BHV function and clinical outcome.
- To explore the potential side effects on the BHV recipients themselves (susceptibility to bacterial infection, vascular inflammation)
- To enable the development of novel preventive and therapeutic strategies to combat BHV-related adverse immune reactions.

TransLink WorkPlan



The success of TransLink will be highly dependent on the synergistic and integrative collaboration between highly specialised professionals working in the context of 7 well defined Work Packages (WP).

WP1 will be responsible for the smooth running of the clinical study. In particular, it will make sure that TransLink enrolls in the 4 centres the cohort of approximately 2,600 BHV recipients necessary for the study.



WP2 will undertake, co-ordinate and centralise: a) the *in-vitro* assessments to identify the carbohydrate moieties on porcine/bovine BHV potentially exposed to anti-BHV immune responses; b) the study of the humoral immune response of the patients recruited by WP1.



WP3 will explore the immune mechanisms responsible for BHV deterioration as well as possible undesirable effects in BHV recipients (vascular inflammation).



WP4 will shed light on the mechanisms that may increase susceptibility to infection in BHV recipients.



Thanks to 3 partner SMEs with cutting-edge technology, in **WP5** TransLink will embark on a "remedy-programme" that will, either pre-emptively (by generating suitable KO-animals) or therapeutically (by using specially designed polymers), protect BHVs and possibly BHV recipients from BHV-derived side-effects detrimental to health.

Finally, **WP6** will be devoted to Training and Dissemination and will be in charge of disseminating the knowledge acquired with TransLink, whilst **WP7** will be devoted to Management.