Joint Bayesian models for heart failure survival and longitudinal data and how we learned about these models together with GRBIO colleagues

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Joint modeling of longitudinal and survival (JM-LS) data allow the inclusion of longitudinal information in survival models, as well as the addition of missing data processes in longitudinal studies. These models are very attractive from a methodological point of view and very valuable in biomedical studies. They were also a point of union between a group of researchers from VABAR (València Bayesian Research Group) and GRBIO, who started a joint task of studying these models: we learned a lot and had more fun. We present a Bayesian JM-LS which accounts for longitudinal continuous information in the unit interval and ordinal longitudinal covariates to learn about competing risk models and discuss their application to a Heart Failure (HF) study where patients underwent cardiac resynchronization therapy.

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