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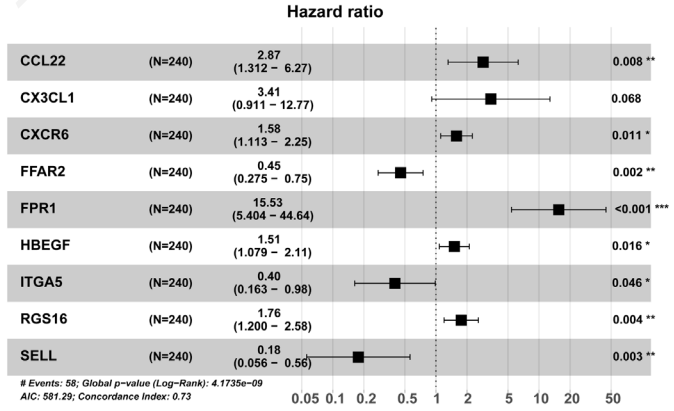
# Development and validation of novel inflammatory response-related gene signature for sepsis prognosis

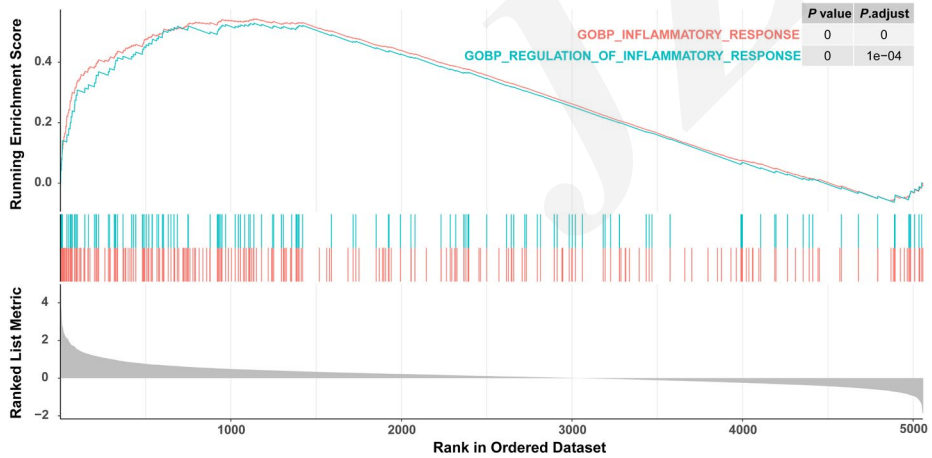
**Key words:** gene signature, Inflammatory Response-Related Gene, prognosis, immune function, sepsis

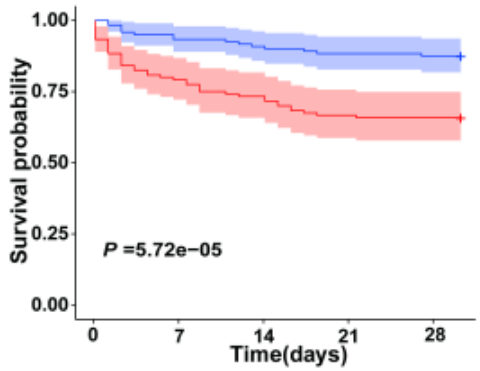
# Research Summary

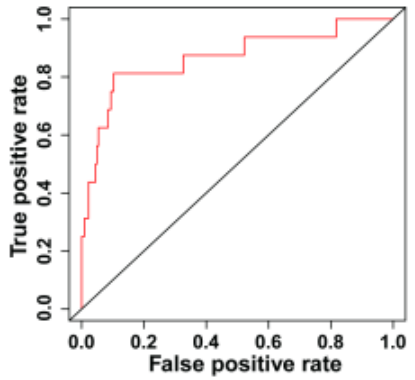
**This research mainly set out to create and validate an inflammatory response-related gene (IRRGs) signature to provide a reliable prognosis prediction for sepsis patients, as well as to describe the immunological status of sepsis patients characterized by a varying prognostic risk.**

- **Identification of prognostic IRRGs in sepsis**
- **Development of prognostic IRRG Signature in sepsis**
- **Comparison of immune status of sepsis patients from different risk groups**



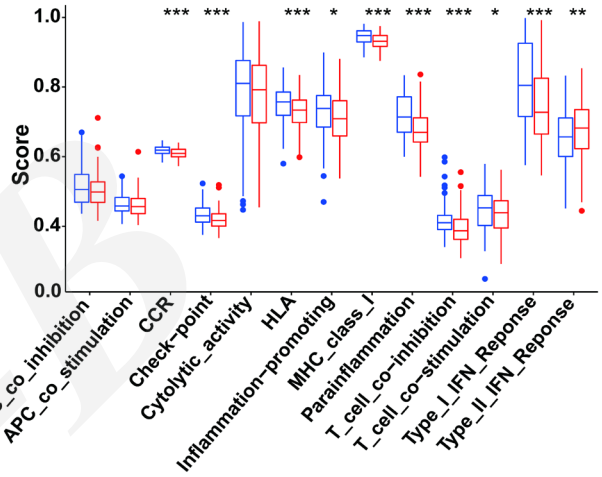



# *Innovation points*

- **Introduction** of the nine IRRGs with prognostic value in sepsis




- **Development** and validation of novel IRRGs signature for sepsis prognosis

**Riskscore = 1.059 × *CCL22* + 1.227 × *CX3CL1* +0.460 × *CXCR6* - 0.789 × *FFAR2* + 2.743 × *FPR1* + 0.411 × *HBEGF* - 0.915 × *ITGA5* + 0.565 × *RGS16* - 1.733 × *SELL***

- **Exploration** of the potential immunological status of the riskscore model