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## WP4 – INDIVIDUALIZED HEMODYNAMIC MANAGEMENT

Leader : Pr Xavier  
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Baron

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UPS/UVSQ/Inserm/AP-HP will characterize individual responsiveness to fluids, vasopressors and inotropes. Based on innovative biochemical, hemodynamic and echocardiographic tools, they will comprehensively assess treatment effects from macro- to microcirculation and tissue oxygenation. We will characterize individual sensitivity /resistance of adrenergic and vasopressinergic receptors. We will predict through individual features adverse reactions to fluid and to heart-lung interactions. Taken together hemodynamic, ultrasound and pharmacological phenotyping, bedside

customization of sepsis hemodynamic management will be proposed. Bedside tools and approaches to detect persistent hypovolemia rather than fluid-responsiveness will be developed, e.g. by combining evaluation of intrathoracic blood content and of mean systemic filling pressure. UVSQ/UPS/Inserm will characterize within WP3, signatures for sensitivity/resistance to adrenergic agonists and vasopressin. We will assess effects of selective beta-1 adrenergic blockade on immune, renal and metabolic responses in septic shock (THANE study).