

Development of novel cardiac molecular imaging probes

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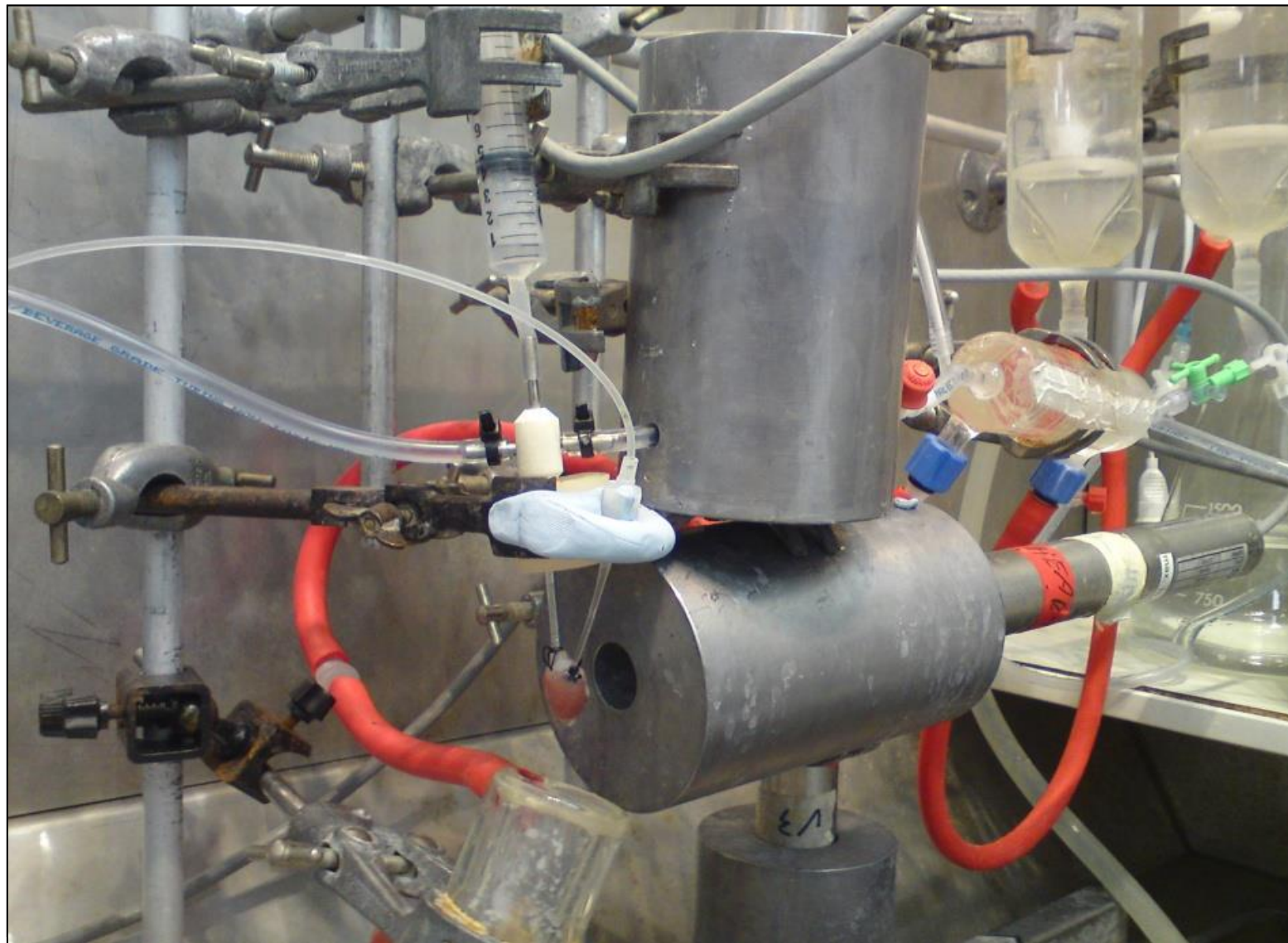
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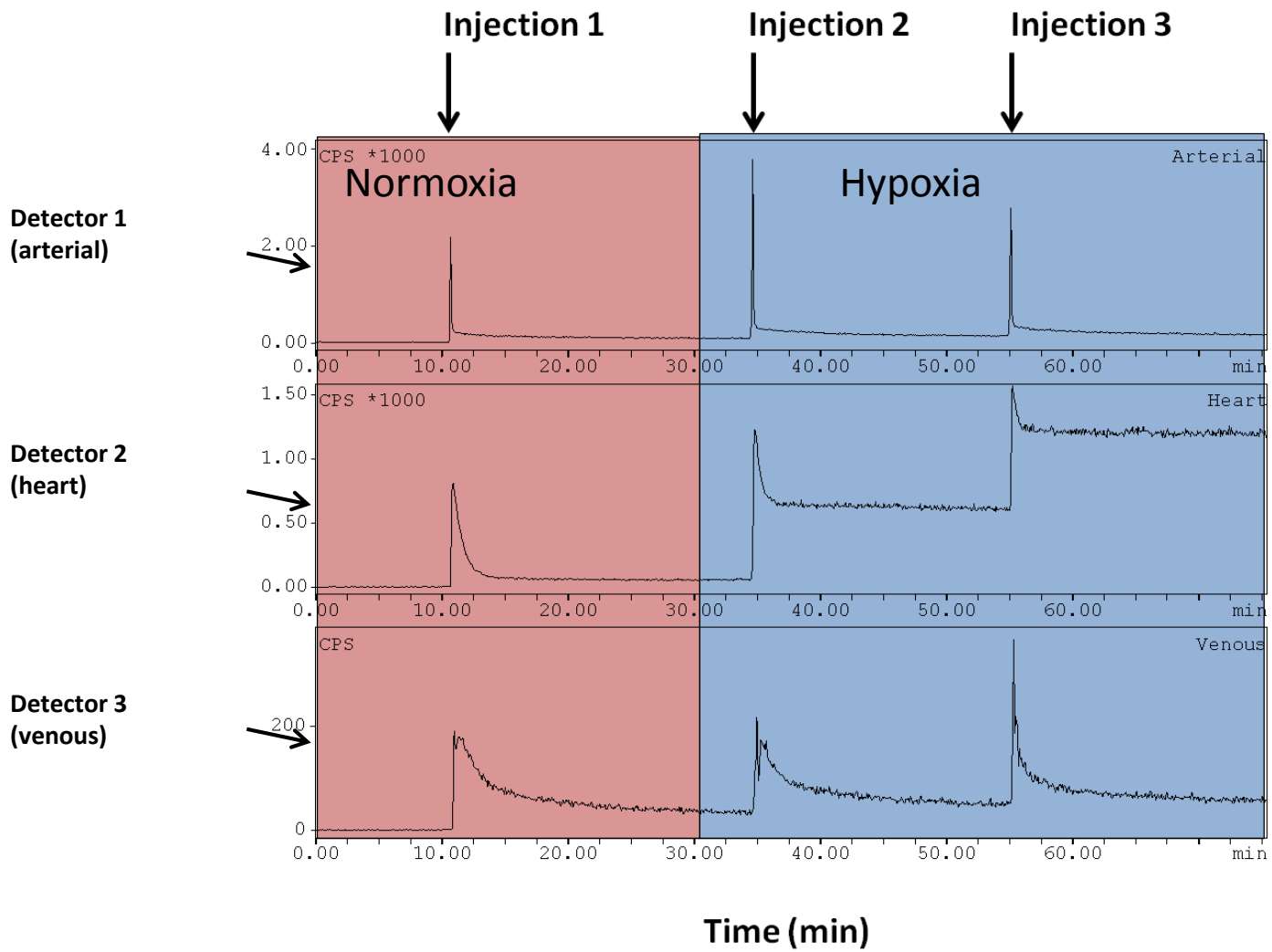
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The Langendorff Isolated perfused heart



Triple γ -Detector System





Current Projects

- Hypoxia
($^{64}\text{Cu}/^{62}\text{Cu}$ BTSC PET, ^{31}P NMR)
- Glucose transporter & hexokinase function / translocation
(^{18}F FDG PET, immunogold EM, ^{13}C DNP NMR, ^{31}P NMR)
- Mitochondrial (anthracycline) toxicity
($^{99\text{m}}\text{Tc}$ sestamibi/ $^{99\text{m}}\text{Tc}$ NOET SPECT, ^{18}F -lipophilic cation PET)
- ROS generation
(^{18}F DHE analog PET)
- Na^+/K^+ ATPase function
(^{23}Na NMR/ ^{82}Rb PET)