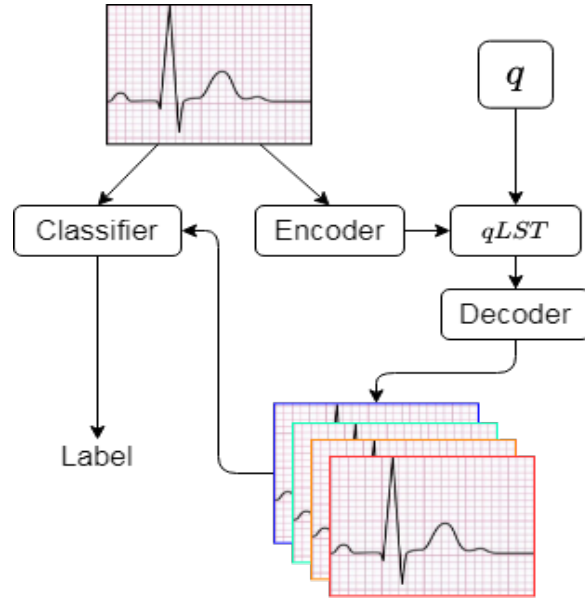# Latent space disentanglement and traversals

(Work done in collaboration with UMCU and UvA, in submission)

- **Disentangle** latent space results in better understanding of latent variables.
- **Visualise** change of latent variables (and combination of latent variables) to see change in features
- Use **latent traversals** to *explain* classifier decisions for medical datasets.
- Classification tasks performed on 10,000 ECGs containing 8 disorders.

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Hybrid Intelligence

Capsules

Equivariant capsules inspired from visual cortex (V1) processing images

- **TopoVAE-** learn latent representation as equivariant capsules
- Extend to different types of data: Graphs, molecules, medical images
- Learn evolving representations as capsule poses.

Demo: Canonical capsules by Sun et al

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