M8

Synthetic data across drug development

What evidence counts at each stage, followed through one cardiometabolic therapy area from discovery to regulatory submission.

Master's · 30 credits | Regulatory science · Bioentrepreneurship | Suits: KI (Bioentrepreneurship, Regulatory science) · SU

The question

Where in the drug-development pipeline for cardiometabolic disease can certified synthetic data be used today, and what evidence would a pharma team, an ethics board or a regulator need at each stage?

Why it matters

Synthetic data is discussed for discovery, trial feasibility and synthetic control arms, but expectations differ sharply by stage. EMA and FDA statements give partial guidance. A clear stage-by-stage evidence map helps companies and research institutes decide where to start.

What you would do

01 Pick one cardiometabolic therapy area, such as type 2 diabetes or heart failure, and map its stages: target discovery, cohort and feasibility analysis, trial design, external comparators, post-market.

02 Review EMA, FDA and Nordic guidance and published use cases at each stage.

03 Interview people in Nordic pharma, CROs and research institutes about what they would accept.

04 Build an evidence ladder: which uses are ready, which need more validation, which are not appropriate.

What you would produce

- A stage-by-stage evidence map
- Interview insights from industry
- Recommendations for early adoption pathways

Good fit if you have

Life-science background; interest in regulation and business; interviewing and synthesis.

Data and access

Public seed data (CMS DE-SynPUF) and synthetic releases from day one. Work on real patient records only inside a partner's approved secure environment, with ethics approval. We hold no Swedish patient data.

Timing and place

Spring or autumn 2027, 20 weeks / 30 credits. Stockholm (Solna) or hybrid.

Supervision

Gaurav Raj Chattarki, Founder, Synthetix Health, together with your academic supervisor.

Questions or a proposal of your own? gaurav@synthetixhealth.com · synthetixhealth.com/careers#thesis

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