Supplemental figure 1

I. To be predefined by the scientists

- Define research question and hypothesis
  i.e. treatment with drug X reduces joint pathology

- Define study design
  i.e. two study groups, comparing treatment with drug X and a vehicle control

- Determine primary outcome measure to answer the research question.
  i.e. synovial inflammation, bone erosion, or cartilage damage

And plan statistical analysis
i.e. two-tailed t-test to compare two treatment groups

II. Required variables for sample size calculation

- Mean value and variation of primary outcome measure in previous studies or literature

- Define effect size
  (anticipated difference between means that you aim to observe)

- Standard deviation
  (SD or σ) of the expected data set

- Power
  (typically 0.8; meaning that there is 80% chance to detect a significant difference in means)

- Significance level
  (α, typically 0.05)

III. Sample size calculation

  Calculate sample size by using statistical software
  (i.e. G*power, R, nQuery, ...)

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