Fig. 1: Schematic overview of I-MPOS, the new clinical genetic approach proposed.

- **Individual's genomic data encrypted & stored in a password protected platform**
  - Automated identification of variants \( \{M_1, M_2, ..., M_n\} \) relative to reference genome
  - Automated Weight score assignment based on the predicted pathogenicity of each mutation identified \( \{W_{t1}, W_{t2}, W_{t3}, ..., W_{tn}\} \)

- **Start here**

- **Personal ES/WGS**
  - Clinical Evaluation: phenotypic findings
  - Phenotype-based genetic database search yielding first ranking
  - Modified Ranking based on \( \{W_{t1}, W_{t2}, W_{t3}, ..., W_{tn}\} \)

- **F/U (new clinical traits & access to updated genetic database)**
  - Diagnosis not identified
  - Consent to access the encrypted data at the locus of interest & CLINICAL GENETIC TEST as needed

- **Physician trained in medical genetics prioritizes results clinically**
  - Confirm diagnosis and provide counselling