

MEDICAL INFORMATICS PLATFORM (MIP)

CHUV- LAUSANNE



A PRIVACY PRESERVING DATA ANALYTICS SOFTWARE FOR CLINICIANS & RESEARCHERS

▶▶ TECHNOLOGY DESCRIPTION

The Medical Informatics Platform (MIP) is a privacy preserving, federated data analytics software. It connects patient anonymised data from hospitals and research cohort datasets without moving them from their original storage and provides a set of pre-integrated statistical methods as well as predictive machine learning algorithms for patient anonymised data exploration, data modelling, integration and execution of experiments [data analysis methods].

The MIP helps investigate and compare harmonized medical extracted form pre-processed neuroimaging, neurophysiological and medical records. The platform offers the least invasive approach to connect centers and datasets; it promotes access to augmented knowledge potential through collaborative research.

ACCESS TO BIG DATA TO PROGRESS IN THE UNDERSTANDING OF NEUROLOGICAL AND PSYCHIATRIC DISEASES



DEVELOP AND VALIDATE NEW BIOMARKERS, AND OFFER NOVEL DIGITAL SOLUTIONS FOR MORE PRECISE AND PERSONALIZED MEDICINE



FEDERATED ANALYSIS OF PATIENTS' DATASETS DISTRIBUTED IN HOSPITALS ACROSS EUROPE



PRIVACY BY DESIGN AND BY DEFAULT; A GROUNDBREAKING APPROACH TO LEVERAGE DATA SHARING IN MEDICINE AND CLINICAL RESEARCH



THE MIP OFFERS SEVERAL WELL-ELABORATED USE-CASES (DEMENTIA, MENTAL HEALTH, EPILEPSY AND TBI), DEMONSTRATING THAT IT IS USE-CASE AGNOSTIC

AREAS

Medicine | Informatics | Neuroscience



Human Brain Project



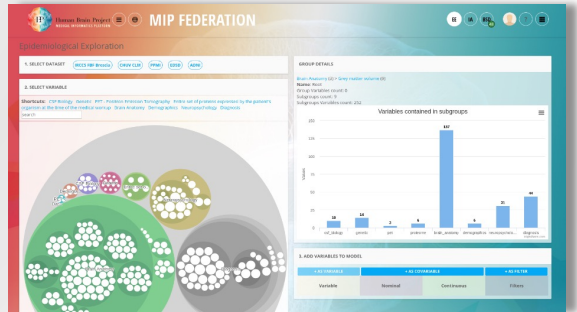
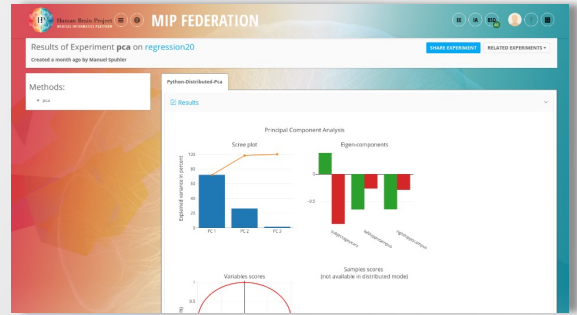
EBRAINS



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COMPETITIVE ADVANTAGES

- The MIP leverages vast amounts of data currently locked in hospitals, without moving them outside their center of origin
- Access to patient data across large number of hospitals, large-scale clinical databases and biobanks
- Automatic extraction of neuromorphometric data from MRI
- Combination of biostatistical tools and machine learning algorithms adapted to the specific requirements of federated analyses
- Privacy preserving and GDPR compliant
- Unique Access to large volume of Human Intracerebral EEG Data



THE MIP ADDRESSES THE NEED TO MANAGE DATA WITHIN A LARGE NETWORK OF HEALTHCARE CENTERS WHILE PROVIDING ACCESS TO RESOURCES OUTSIDE THE HOSPITAL'S WALLS

APPLICATION & MARKET POTENTIAL



REFERENCES

MIP is gradually engaging an increasing number of medical centers in Europe, connecting thousands of patients around the major neurological diseases. Current MIP users include CHUV, Fatebenefratelli Brescia, CHRU Lille, Niguarda Ospedale, Mario Negri Institute Bergamo, Karolinska Institute, Stockholm

TECHNOLOGY READINESS LEVEL



Tech sheet designed and co-developed by Universidad Politécnica de Madrid

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