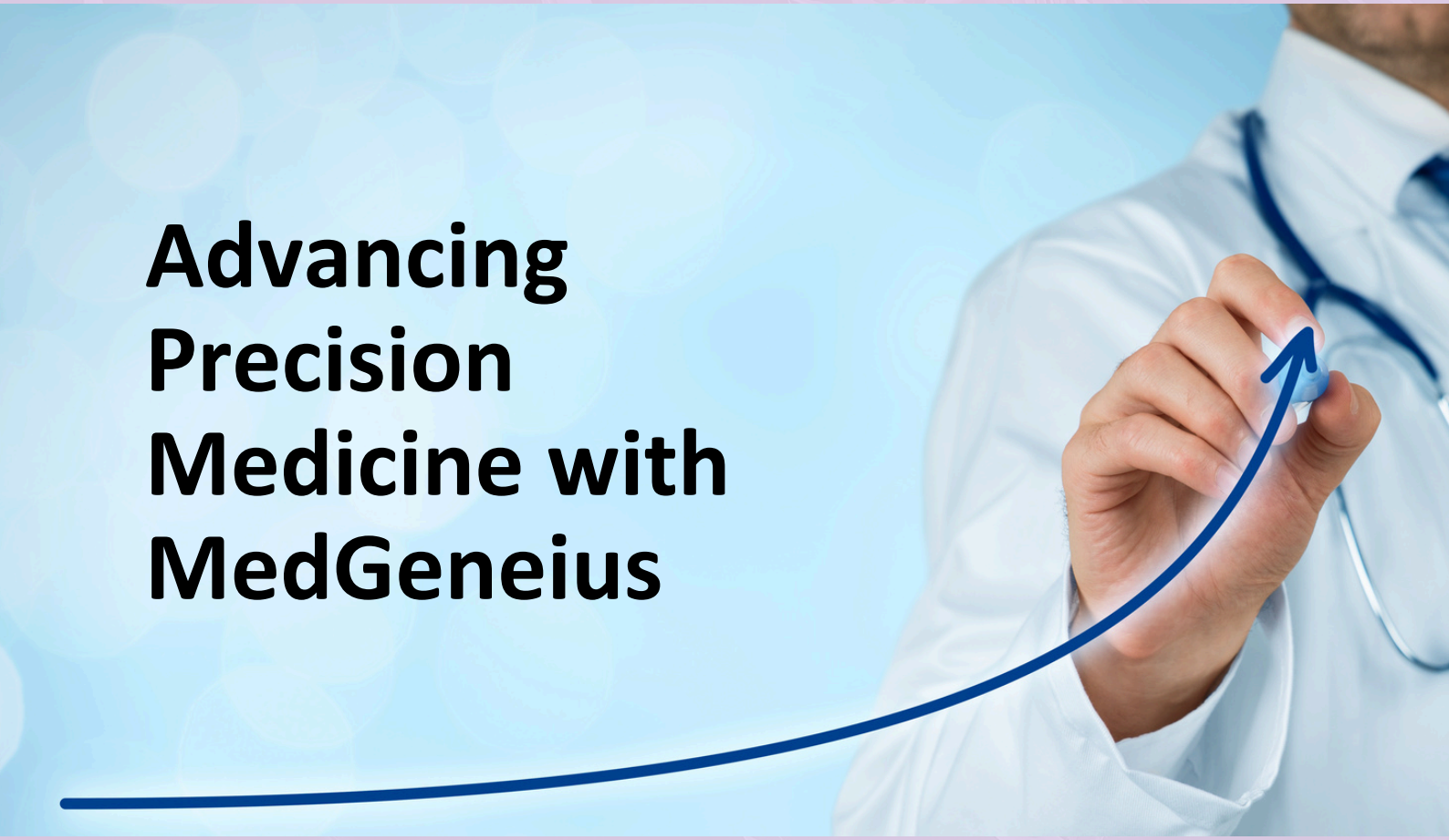
MedGeneius

Advancing Precision Medicine with MedGeneius



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MedGenexus

Pharmacogenomics (PGx) is revolutionizing healthcare by enabling precision medicine prescribing based on genetic insights.

By analyzing how an individual's genetic makeup influences their response to medications, PGx enables healthcare providers to move beyond the traditional "one-size-fits-all" or trial-and-error approach to prescribing.

Organizations conducting genetic analyses play a critical role in this transformation. However, to fully leverage the power of PGx, they require efficient, accurate, and configurable software solutions for clinical interpretation and decision support.

Challenges Faced by organizations in PGx Implementation

Customization limitations

Difficulty in tailoring reports to specific institutional needs

Phenotype conversion complexity

The need for precise and efficient genotype-to-phenotype mapping

Quality Control

Ensuring accuracy in interpertation of genetic results

Data handling inefficiencies

Variable input optimization

Evidence-based decision-making

Flexibility in chosen source for clinical decision support

Time prohibitive

Mapping clinical phenotypes to genotypes can be laborious

The MedGeneius Solution: A Configurable and Seamless Platform

MedGeneius is designed to address the above challenges, providing organizations with a configurable platform to seamlessly translate and integrate within each ecosystem and optimize PGx workflows.

STRATEGIC ADVANTAGE	COMPREHENSIVE TRANSLATION (GENOTYPE TO PHENOTYPE)	AGNOSTIC INTEGRATION INTO ALL WORKFLOWS
CONFIGURABLE	✓	✓
SEAMLESS	✓	✓

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Key Features:

MedGeneius empowers organizations with an end-to-end solution designed for efficiency, accuracy, and flexibility:

Customizable Phenotype Conversion:
- select genes, medications, naming conventions, evidence sources, and confidence levels

Flexible Data Integration:
- private upload capability supporting CSV, TXT and HL7 formats

Provide Liftover Capabilities:
- supports genome assembly liftover, enabling seamless conversion of variant coordinates (e.g., GRCh37 GRCh38) to ensure compatibility.

Tailored Input and Output Options:
- txt, CSV, JSON formats, HL7 formats, and API capability for inputs
- output delivery in JSON, PDF, and API capabilities for output delivery

Quality Control Mechanisms:
- identification of key SNPs with strong evidence and identification of genotype to phenotype errors

Collaborative Output Curation:
- Work closely with organizations to ensure tailored and relevant clinical reporting

Seamless integration into ecosystem workflows
- capability to be integrated into electronic health records, work within B2B systems and apps

Continuous updates of evidence based on CPIC, PharmGKB, FDA and other authoritative bodies

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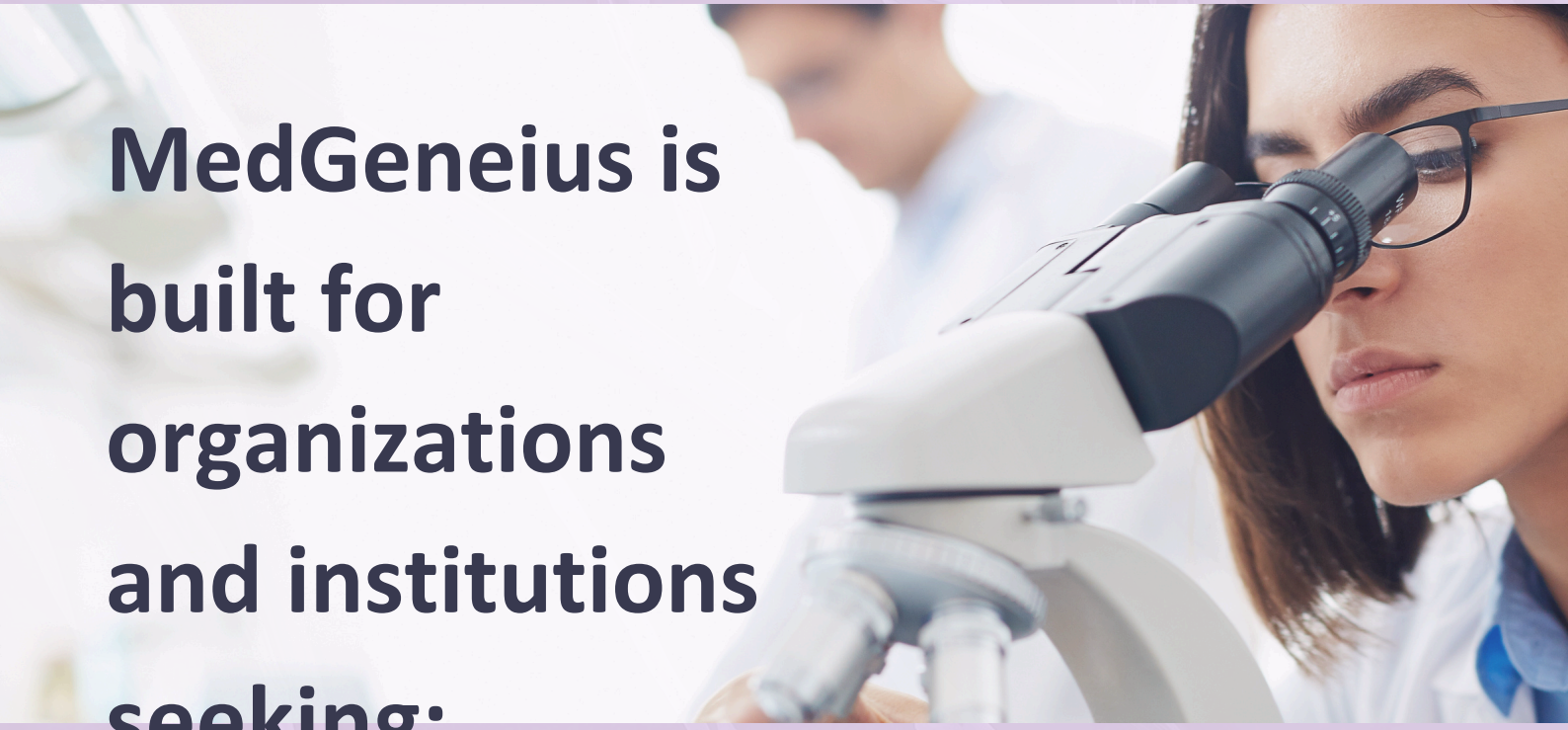
Why should organizations use MedGeneius



MedGeneius is built for organizations and institutions seeking:

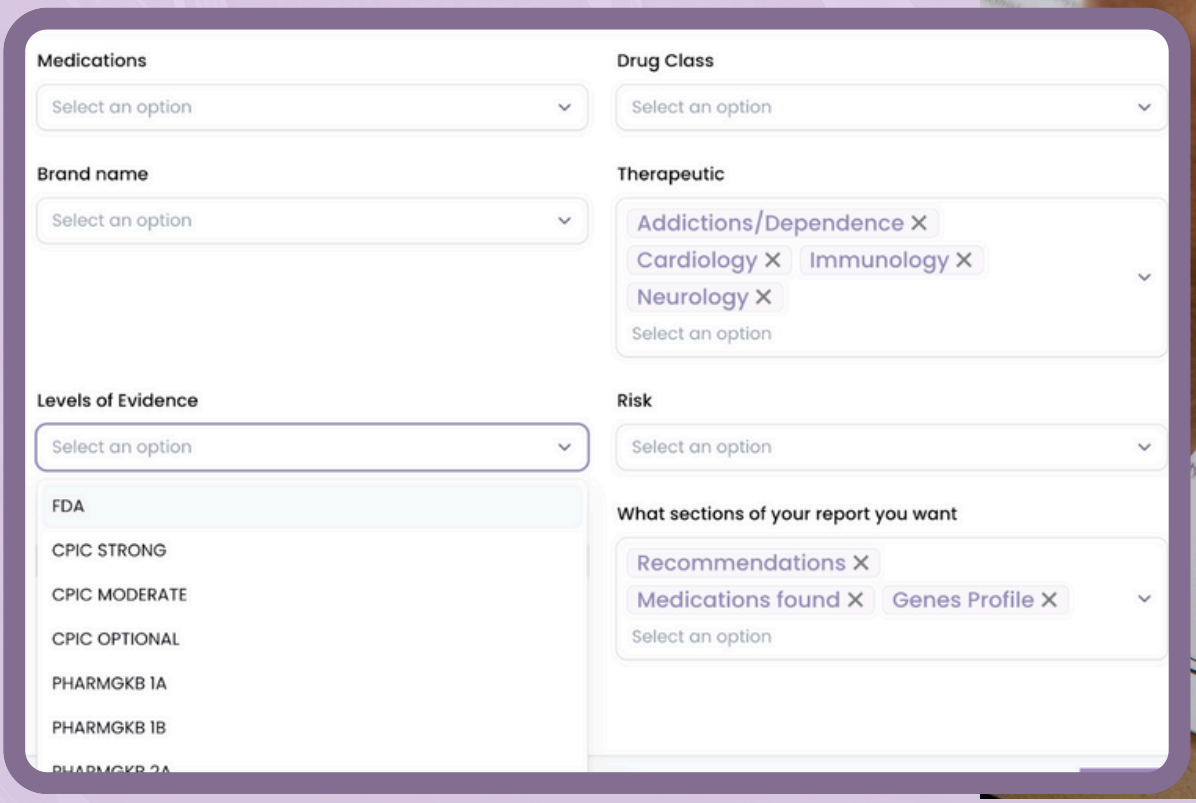
- A seamless, configurable solution that adapts to institutional needs
- Enhanced quality assurance and configurable evidence based decision support
- Greater quality and control over PGx interpretation and reporting
- A partner committed to expanding PGx adoption and advancing precision medicine

Use Cases

Customizable Phenotype Conversion: Select genes, medications, evidence sources, and confidence levels

Many current PGx solutions give a full report and do not allow customizations that a lab may require.

MedGeneius' solution allows the user to fully control what is being generated, seen, or shown.



Use Cases

Quality Control Mechanisms:
Identification of key SNPs with strong evidence and genotype-to-phenotype errors
Gaps can be encountered in the organizations doing genetic testing with genotype identification.

MedGeneius' solution can allow for the Identification of incorrect genotype calls at the lab level

TPMT
TPMT *1/*1
rs1142345:T/T Ref
rs1800584:c/c Ref
rs1800460:c/c Ref
rs1800462:C/C Ref

VKORC1
VKORC1 *2/*3
rs9923231:C/T Het

MedGeneius was able to identify the incorrect call of VKORC1 *2/*3 and informed the client this error had been made in the lab.

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The future of PGx or pharmacogenomics depends on organizations having access to efficient, accurate, and configurable software solutions. MedGeneius stands at the forefront of this innovation.

If your organization is looking to enhance its PGx capabilities, streamline workflows, and improve patient outcomes.

Contact us today at **info@medgeneius.com** to discover how we can support your journey.