23andMe Pharmacogenetics Summary Report

This summary report is intended for healthcare professional use only.

Patient Name: Jaime King
Testing Facility: 23andMe
Sample Type: Saliva (self-collected and submitted by mail)

Ordered By: Jaime King, self-referral of over-the-counter test
Date Genotyped: 24 Mar 2018
Date Printed: 26 May 2021

Test Information

23andMe Pharmacogenetics reports provide information about DNA variants that may affect the function of specific proteins involved in the processing of certain medications. This genetic information is intended to help inform discussions with a healthcare professional.

This test does not diagnose any health conditions, provide medical advice, or determine whether a medication is indicated.

<table>
<thead>
<tr>
<th>GENE</th>
<th>VARIANT(S) DETECTED</th>
<th>TEST RESULT</th>
<th>OVERALL FUNCTIONAL EFFECT</th>
<th>THERAPEUTIC AREA</th>
<th>EXAMPLES OF MEDICATIONS PROCESSED IN PART BY THE PROTEIN</th>
<th>MEDICATION INSIGHTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYP2C19</td>
<td>*2 (one copy)</td>
<td>Predicted intermediate metabolizer</td>
<td>Decreased enzyme function</td>
<td>Cardiology</td>
<td>clopidogrel</td>
<td>Cloniprodol: Likely less effective</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Gastroenterology</td>
<td>omeprazole, pantoprazole</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Infectious Disease</td>
<td>voriconazole</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Neurology</td>
<td>brivaracetam, clobazam</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Psychiatry</td>
<td>citalopram, doxepin, escitalopram</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Healthcare professionals can learn more at medical.23andme.com/pgt-portal</td>
<td></td>
</tr>
<tr>
<td>DPYD</td>
<td>No variants detected</td>
<td>Predicted normal metabolizer</td>
<td>Normal enzyme function</td>
<td>Oncology</td>
<td>capecitabine, fluorouracil (5-FU)</td>
<td></td>
</tr>
<tr>
<td>SLCO1B1</td>
<td>No variants detected</td>
<td>Predicted normal function</td>
<td>Normal protein function</td>
<td>Healthcare professionals can learn more at medical.23andme.com/pgt-portal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1Variants tested: CYP2C19: *2 (c.681G>A, rs4244285), *3 (c.636G>A, rs4986893), *17 (c.-806C>T, rs12248560); DPYD: *2A (c.1905+1G>A, rs3918290), D949V (c.2846A>T, rs67376798); SLCO1B1: c.521T>C (in haplotypes *5, *15, and *17; rs4149056)

2Results from this test should not be used to make medical decisions. Results should be confirmed by an independent genetic test prescribed by an individual’s own healthcare provider before taking any medical action. Exceptions to this limitation are CYP2C19 genotyping results, which do not require confirmatory testing (unless the genotype result is CYP2C19 *3/*17 or the metabolizer profile cannot be interpreted).

3Medication Insights are currently available for citalopram and clopidogrel, included with the CYP2C19 Drug Metabolism report. Interpretive drug information is only available for certain genetic results.

Test Performance

23andMe Pharmacogenetics reports are authorized by the FDA and meet standards of clinical and analytical validity. All saliva samples are processed in CLIA-certified and CAP-accredited labs and are genotyped using a custom version of the Illumina Global Screening Array (GSA). Accuracy of the 23andMe genotyping platform was determined by comparing results from the 23andMe genotyping array with results from sequencing. Greater than 99% of test results were correct. While unlikely, this test may provide false positive or false negative results.
Test Limitations

- Does not test for all possible DNA variants in the tested genes that may affect protein function. Having a variant not included in this test may change a person's predicted metabolizer profile or protein function.
- Does not test for DNA variants in other genes that may affect other proteins involved in the processing of medications.
- Does not provide information on associations between specific DNA variants in the DPYD and SLCO1B1 genes and any specific medications.
- Does not account for lifestyle or other health factors that may affect an individual's ability to process medications.

Healthcare professionals can learn more at [medical.23andme.com/pgt-portal](http://medical.23andme.com/pgt-portal)

† The 23andMe Personal Genome Service (PGS) is a qualitative genotyping assessment system applied to genomic DNA isolated from human saliva to simultaneously detect, report, and interpret genetic variants in a broad multigene test. The assessment system is intended to enable users to access information about their genetics that could aid discussions with a healthcare professional.

23andMe Pharmacogenetic reports are for over-the-counter use by adults over the age of 18 and provide genetic information to inform discussions with a healthcare professional about processing of therapeutics. The 23andMe Pharmacogenetic reports for DPYD and SLCO1B1 describe if a person has variants associated with processing of some therapeutics, but do not describe if a person will or will not respond to a particular therapeutic, and do not describe the association between detected variants and any specific therapeutic. The 23andMe Pharmacogenetic report for CYP2C19 describes if a person has variants associated with processing of some therapeutics and provides interpretive drug information regarding the potential effect of the identified metabolizer phenotype on citalopram and clopidogrel therapy. 23andMe Pharmacogenetic reports are not a substitute for visits to a healthcare professional. The information provided by these reports should not be used by an individual to start, stop, or change any course of treatment. Individuals should consult with their healthcare provider before taking any medical action.