DEMO REPORT04

BIOGENIQ

Sample number		**Report date**	2019-06-17
Date of birth	1990-01-01	**Specimen**	Saliva
Sex	Male		
Pharma Profile(s)	Cardiology		

Pharmacogenomic report

For more information, contact us:

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The Pharma profile is a clinical decision support tool aimed at reducing the risks of adverse drugs reactions and therapeutic failure. The Pharma profile does not replace existing prescription guides. Response to medication can be influenced by factors not evaluated in this report. Response to treatment may be different than predicted in this report. The Pharma profile does not diagnose any disorder, condition or disease. Do not change your medication without prior approval from your treating clinician.

Alpha 2 - adrenergic agonist

Clonidine (CATAPRES®, DIXARIT®)

Anticoagulant

Acenocoumarol (SINTROM®)

Warfarin (COUMADIN®)

Beta blocker

Carvedilol (COREG®)

Metoprolol (LOPRESOR®)

Statin

Simvastatin (ZOCOR®)

Antiarrhythmic

Flecainide (TAMBOCOR®)

Propafenone (RYTHMOL®)

Antiplatelet

Clopidogrel (PLAVIX®)

Proton pump inhibitor (PPI)

⚠ **Esomeprazole** (NEXIUM®)

⚠ **Lansoprazole** (PREVACID®)

⚠ **Omeprazole** (LOSEC®)

⚠ **Pantoprazole** (PANTOLOC®)

Legend: (!) Increased risk of adverse drug reactions ⚠ Increased risk of therapeutic failure

PHARMACOGENOMIC RECOMMENDATIONS

Acenocoumarol (SINTROM®) GENES: ***CYP2C9, VKORC1*** LEVEL OF EVIDENCE: **1**

No genetic variation identified that would prompt changes to acenocoumarol therapy

Your body should metabolize and eliminate acenocoumarol normally. Therefore, your genetic results do not suggest any change to acenocoumarol therapy.

- No change to the recommended dose.

Carvedilol (COREG®) GENE: ***CYP2D6*** LEVEL OF EVIDENCE: **1**

No genetic variation identified that would prompt changes to carvedilol therapy

Your body should metabolize and eliminate carvedilol normally. Therefore, your genetic results do not suggest any change to carvedilol therapy.

- No change to the recommended dose.

Clonidine (CATAPRES®, DIXARIT®) GENE: ***CYP2D6*** LEVEL OF EVIDENCE: **4**

No genetic variation identified that would prompt changes to clonidine therapy

Your body should metabolize and eliminate clonidine normally. Therefore, your genetic results do not suggest any change to clonidine therapy.

- No change to the recommended dose.

Clopidogrel (PLAVIX®) GENE: ***CYP2C19*** LEVEL OF EVIDENCE: **1**

No genetic variation identified that would prompt changes to clopidogrel therapy

Although your body may metabolize and activate clopidogrel at a faster rate than expected, your genetic results do not suggest any change to clopidogrel therapy.

- No change to the recommended dose.

⚠ **Esomeprazole** (NEXIUM®) GENE: ***CYP2C19*** LEVEL OF EVIDENCE: **1**

Increased probability of treatment failure with standard dosing of esomeprazole

Your body may metabolize and eliminate esomeprazole at a faster rate than expected.

- Be alert to insufficient response.
- A dose adjustment could improve treatment efficacy.
- Consult your healthcare provider to optimize your therapy.

Flecainide (TAMBOCOR®) GENE: ***CYP2D6*** LEVEL OF EVIDENCE: **1**

No genetic variation identified that would prompt changes to flecainide therapy

Your body should metabolize and eliminate flecainide normally. Therefore, your genetic results do not suggest any change to flecainide therapy.

- No change to the recommended dose.

Legend: (!) Increased risk of adverse drug reactions ⚠ Increased risk of therapeutic failure

⚠ **Lansoprazole** (PREVACID®) GENE: ***CYP2C19*** LEVEL OF EVIDENCE: **1**

Increased probability of treatment failure with standard dosing of lansoprazole

Your body may metabolize and eliminate lansoprazole at a faster rate than expected.

- Be alert to insufficient response.
- A dose adjustment could improve treatment efficacy.
- Consult your healthcare provider to optimize your therapy.

Metoprolol (LOPRESOR®) GENE: ***CYP2D6*** LEVEL OF EVIDENCE: **1**

No genetic variation identified that would prompt changes to metoprolol therapy

Your body should metabolize and eliminate metoprolol normally. Therefore, your genetic results do not suggest any change to metoprolol therapy.

- No change to the recommended dose.

⚠ **Omeprazole** (LOSEC®) GENE: ***CYP2C19*** LEVEL OF EVIDENCE: **1**

Increased probability of treatment failure with standard dosing of omeprazole

Your body may metabolize and eliminate omeprazole at a faster rate than expected.

- Be alert to insufficient response.
- A dose adjustment could improve treatment efficacy.
- Consult your healthcare provider to optimize your therapy.

⚠ **Pantoprazole** (PANTOLOC®) GENE: ***CYP2C19*** LEVEL OF EVIDENCE: **1**

Increased probability of treatment failure with standard dosing of pantoprazole

Your body may metabolize and eliminate pantoprazole at a faster rate than expected.

- Be alert to insufficient response.
- A dose adjustment could improve treatment efficacy.
- Consult your healthcare provider to optimize your therapy.

Propafenone (RYTHMOL®) GENE: ***CYP2D6*** LEVEL OF EVIDENCE: **1**

No genetic variation identified that would prompt changes to propafenone therapy

Your body should metabolize and eliminate propafenone normally. Therefore, your genetic results do not suggest any change to propafenone therapy.

- No change to the recommended dose.

Simvastatin (ZOCOR®) GENE: ***SLCO1B1*** LEVEL OF EVIDENCE: **1**

No genetic variation identified that would prompt changes to simvastatin therapy

Your body should metabolize and eliminate simvastatin normally. Therefore, your genetic results do not suggest any change to simvastatin therapy.

- No change to the recommended dose.

Legend: (!) Increased risk of adverse drug reactions ⚠ Increased risk of therapeutic failure

Warfarin (COUMADIN®) GENES: ***CYP2C9*, *VKORC1*** LEVEL OF EVIDENCE: **1**

No genetic variation identified that would prompt changes to warfarin therapy

Your body should metabolize and eliminate warfarin normally. Therefore, your genetic results do not suggest any change to warfarin therapy.

- No change to the recommended dose.

Legend: (!) Increased risk of adverse drug reactions ⚠ Increased risk of therapeutic failure

RESULTS

GENES	PHENOTYPES	GENOTYPES	TESTED ALLELES
CYP2C19	Rapid metabolizer	*1/*17	*2, *3, *4, *5, *6, *7, *8, *17
CYP2C9	Normal metabolizer	*1/*1	*2, *3, *4, *5, *6, *8, *11, *12, *13, *15, *25, *27
CYP2D6	Normal metabolizer	*1/*10	*2, *3, *4, *5, *6, *7, *8, *9, *10, *11, *12, *14, *15, *17, *19, *41, *69, CNV
SLCO1B1	Normal activity	*1/*1	*5
VKORC1	Normal activity	*1/*1	*2

CYP2C19: Cytochrome P450 2C19; CYP2C9: Cytochrome P450 2C9; CYP2D6: Cytochrome P450 2D6; SLCO1B1: Solute carrier organic anion transporter family member 1B1; VKORC1: Vitamine K epoxide reductase complex subunit 1

Levels of evidence

1 - Recommendation based on pharmacogenetic information on the drug label approved by Health Canada and/or the US Food and Drug Administration (FDA). A level 1 will also be attributed if the recommendation originates from a clinical guideline published by the Clinical Pharmacogenetics Implementation Consortium (CPIC) or the Dutch Pharmacogenomics Working Group (DPWG).

2 - Recommendation based on the results of multiple studies showing a statistically significant effect of a genetic variant on drug response.

3 - Recommendation based on the results of a single study showing a statistically significant effect of a genetic variant on drug response and/or drug pharmacokinetics.

4 - Recommendation based only on knowledge of the principal metabolizing enzyme without in vivo or in vitro data demonstrating the impact that genetic variability has on drug response or pharmacokinetics.

Approved by: Jérome Maheux
PhD, Chemist 2016-081

Date: 2019-06-17