# **Patient Health Summary**

Name: Miss Sarah Williams Address: 409 / 15 Freeman Loop

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0863141161

D.O.B.: 15/08/1990 Record No.: 19552

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### **Investigations:**

WILLIAMS, SARAH M

U 409 15 FREEMAN LOOP, NORTH FREMANTLE. 6159

**Birthdate:** 15/08/1990 **Sex:** F **Medicare Number:** 2241910166

Your Reference: Lab Reference: 25-86570498-PWX-0

Laboratory: WESTERN DIAGNOSTIC PATHOLOGY

Addressee: DR JAMES K LALOR Referred by: DR JAMES K LALOR

Name of Test: PGX MULTI (PWX-0)

**Requested:** 23/01/2025 **Collected:** 24/01/2025 **Reported:** 11/02/2025 11:18

MULTIPLE MEDICATION TYPES - PGX MULTI

SUMMARY REPORT:

#### PGX MULTI - Multi Medication Pathology Report Summary

Please note this report is a SUMMARY only. To view the full report\* with recommendations for all medications listed in this summary report, use the following link https://links.mydna.life/7063rbew

SAMPLE TYPE: EDTA Blood

#### CLINICAL NOTES

To ascertain the best anti-depressant medication

#### PHARMACOGENOMIC TEST RESULTS SUMMARY

CYP2D6 - \*2/\*3 - Intermediate metaboliser
CYP2C19 - \*1/\*1 - Normal metaboliser
CYP2C9 - \*1/\*2 - Intermediate metaboliser
VKORC1 - A/G - Moderately reduced VKORC1 enzyme level
CYP1A2 - \*1A/\*1F - Normal metaboliser
CYP3A4 - C/C - Normal metaboliser
CYP3A5 - \*1/\*3 - Intermediate metaboliser
SLC01B1 - C/C - Poor transporter function
CYP2B6 - \*1/\*1 - Normal metaboliser
OPRM1 - A/A - Normal mu opioid receptor expression

ABCG2 (rs2231142) - A/C - Decreased transporter function

### MEDICATIONS PROVIDED ON REQUEST FORM

The following information provides a guide on the potential clinical issues for antidepressants, antipsychotics, NSAIDs, opioids and other medications covered in this test.

### Interpretation:

ANTIDEPRESSANTS - Important genes (CYP2D6, CYP2C19, CYP2C9, CYP1A2)

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# A significant change to metabolism for the following medications is predicted:

Amitriptyline (TCA) - Altered response Clomipramine (TCA) - Altered response Dosulepin (TCA) - Altered response Doxepin (TCA) - Altered response Imipramine (TCA) - Altered response Nortriptyline (TCA) - Adverse effects Paroxetine (SSRI) - Adverse effects

# A minor or uncertain change to metabolism for the following medications is predicted:

Agomelatine - Reduced / inadequate response Duloxetine (SNRI) - Adverse effects Fluoxetine (SSRI) - Altered response Fluvoxamine (SSRI) - Adverse effects Mianserin - Adverse effects Mirtazapine - Adverse effects Venlafaxine (SNRI) - Altered response Vortioxetine - Adverse effects

# No altered effect on metabolism due to genotype, usual dosage and monitoring should be considered:

Bupropion - No altered effect predicted by genotype Citalopram (SSRI) - No altered effect predicted by genotype Escitalopram (SSRI) - No altered effect predicted by genotype Moclobemide - No altered effect predicted by genotype Sertraline (SSRI) - No altered effect predicted by genotype

### ANTIPSYCHOTICS - Important genes (CYP2D6, CYP1A2, CYP3A4)

### A significant change to metabolism for the following medications is predicted:

Zuclopenthixol - Adverse effects

# A minor or uncertain change to metabolism for the following medications is predicted:

Aripiprazole - Adverse effects Brexpiprazole - Adverse effects Chlorpromazine - Adverse effects Clozapine - Adverse effects Haloperidol - Adverse effects Risperidone - Adverse effects

# No altered effect on metabolism due to genotype, usual dosage and monitoring should be considered:

Flupenthixol - No altered effect predicted by genotype Olanzapine - No altered effect predicted by genotype Quetiapine - No altered effect predicted by genotype

### OTHER MENTAL HEALTH MEDICATIONS - Important genes (CYP2D6, CYP2C19, CYP1A2)

# A minor or uncertain change to metabolism for the following medications is predicted:

Atomoxetine - Reduced / inadequate response Dexamphetamine - Adverse effects Lisdexamfetamine - Adverse effects

# No altered effect on metabolism due to genotype, usual dosage and monitoring should be considered:

Clobazam - No altered effect predicted by genotype Diazepam - No altered effect predicted by genotype Melatonin - No altered effect predicted by genotype

#### NSAIDs - Important genes (CYP2C9)

# A minor or uncertain change to metabolism for the following medications is predicted:

Celecoxib - Increased therapeutic and/or adverse effects
Ibuprofen - Adverse effects
Meloxicam - Adverse effects
Piroxicam - Adverse effects

No altered effect on metabolism due to genotype, usual dosage and monitoring should be considered:

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Diclofenac - No altered effect predicted by genotype Indomethacin - No altered effect predicted by genotype Mefenamic Acid - No altered effect predicted by genotype

#### OPIOID ANALGESICS - Important genes (CYP2D6, OPRM1)

### A significant change to metabolism for the following medications is predicted:

Codeine - Reduced / inadequate response Tramadol - Reduced / inadequate response

### A minor or uncertain change to metabolism for the following medications is predicted:

Oxycodone - Reduced / inadequate response

### No altered effect on metabolism due to genotype, usual dosage and monitoring should be considered:

Methadone - No altered effect predicted by genotype Morphine - Associated with increased sensitivity to morphine

OTHER PAIN RELIEVING MEDICATIONS - Important genes (CYP1A2, CYP2C19, CYP2D6)

### A significant change to metabolism for the following medications is predicted:

Amitriptyline (TCA) - Altered response Nortriptyline (TCA) - Adverse effects

# A minor or uncertain change to metabolism for the following medications is predicted:

Duloxetine (SNRI) - Adverse effects

ONLINE ACCESS

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

To view the detailed recommendations for all medications listed in this report, please go to the following link https://links.mydna.life/MqKbSMSj

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To provide your patient with access to their full report via a secure online portal, please pass on the following information:

- 1. Visit https://explore.mydna.life/#/acctmgmt/findpatient
- 2. Enter this unique activation number: 137788

\*

#### TEST SEND OUT:

TEST METHODOLOGY AND LIMITATIONS: Pharmacogenomics testing and clinical interpretation was performed by My DNA Life Australia in a NATA accredited laboratory (NATA accredited lab No 20082). DNA is extracted from a blood or cheek swab sample and SNP genotyping is performed using open array technology (Life Technologies QuantStudio 12K). CYP2D6 copy number is established by real time PCR (QuantStudio 6), allowing for quantification of up to  $\overline{4}$  copies. 3D PCR (QuantStudio 3D) is used to determine which allele is duplicated. The genomic regions listed in this report were tested using the Life Technologies QuantStudio System; there is a possibility that the tested individual is a carrier for additional, undetected variants that may affect results. Although molecular tests are highly accurate, rare diagnostic errors may occur that interfere with analysis. Sources of these errors include sample mix-up, trace contamination, and other technical errors. The presence of additional variants nearby may interfere with variant detection. Genetic counselling is recommended to properly review and explain these results to the tested individual. Allergic reactions cannot be detected by this genetic test. The test does not detect all known variants in the genes tested. If an individual carries a rare variant not covered by the test, the phenotype may be inaccurately reported. The interpretation and clinical recommendations are based on the above results as reported by My DNA Life Australia and also uses information provided to myDNA by the referring healthcare professionals. This report also assumes correct labelling

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of sample tubes and that the sample is from the indicated patient. Response to medications is complex and may also be influenced by factors which are not tested for (e.g. compliance, concurrent illness, drug-drug interactions.). The test only determines response to indicated medications.

Allergic reactions cannot be detected by this genetic test. The test does not detect all known variants in the genes tested. If an individual carries a rare variant not covered by the test, the phenotype may be inaccurately reported.

Unless instructed by their doctor, patients are advised not to alter the dose or stop any medications.

TEST PANEL OF GENES AND VARIANTS: The following clinically actionable alleles are tested: The following clinically actionable variants are tested: ABCG2 - rs2231142 (NC 000004.11:g.89052323G>T); CYP1A2 \*1F(LRG 1274:g.5732C>A); CYP2B6 \*4 (LRG 1267:g.23060A>T), \*6 (LRG 1267:g.[20638G>T;23060A>T]), \*9 (LRG 1267:g.20638G>T), \*18.001 (LRG\_1267:g.26018T>C), \*18.002 (LRG\_1267:g.[23060A>T;26018T>C]), \*22 (LRG\_1267:g.4926T>C); CYP2C19 \*2(NG\_008384.3:g.24179G>A), \*3(NG\_008384.3:g.22973G>A), \*9 (NG\_008384.3:g.17809G>A) \*17(NG\_008384.3:g.4220C>T); CYP2C9 \*2(LRG\_1195:g.9133C>T), \*3(LRG\_1195:g.48139A>C), \*5 (LRG\_1195:g.48144C>G), \*6 (LRG\_1195:g.16126del), \*8 (LRG\_1195:g.9152G>A), \*11 (LRG\_1195:g.48067C>T), \*27 (LRG\_1195:g.9152G>T); CYP2D6 \*2 (LRG\_303:g.7870C>T), \*3 (LRG\_303:g.7569del), \*4 (LRG\_303:g.[5119C>T; 6047G>A]), \*5 (del(CYP2D6)), \*6 (LRG\_303:g.6727del), \*7 (LRG\_303:g.7955A>C), \*8 (LRG\_303:g.[6778G>T; 7870C>T), \*9 (LRG\_303:g.7635\_7637del), \*10 (LRG\_303:g.5119C>T), \*12 (LRG\_303:g.[5143G>A; 7870C>T]), \*114 (LRG\_303:g.[5119C>T;6778G>A;7870C>T]), \*14 (LRG\_303:g.[6778G>A ;7870C>T]), \*17 (LRG 303:g.[ 6041C>T;7870C>T], \*29 (LRG\_303:g.[7870C>T;8203G>A], \*36 (NC\_000022.10:g.[42526694G>A;42522624\_42522669con42536337\_42536382]), \*41(LRG\_303:g.[7870C>T; 8008G>A]); CYP3A4 \*22(NG\_008421.1:g.20493C>T); CYP3A5 \*3 (NG\_007938.1:g.12083G>A), \*6(NG\_007938.1:g.19787G>A), \*7(NG 007938.1:g.32228dup); OPRM1 - rs1799971 NM 000914.4:c.118A>G; SLC01B1 - rs4149056 NM 006446.4:c.521T>C and VKORC1 - rs9923231 NM 024006.5:c.-1639G>A. The \*1 allele denotes the absence of any variant and is designated as the wild type. The \*1A allele denotes the absence of the \*1F variant for CYP1A2. Only a single variant SNP is tested for the CYP1A2, CYP3A4, OPRM1 and SLCO1B1 genes. All variants are named using the HGVS nomenclature.

Requested Tests : PWX

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