

## Patient Summary

### Genetic Testing for CYP450 and Use of SSRIs for Depression in Adults

#### Recommendations from the EGAPP™ Working Group

In 2007, the independent, non-federal Evaluation of Genomic Applications in Practice and Prevention (EGAPP™) Working Group ([www.egapreviews.org/workinggrp.htm](http://www.egapreviews.org/workinggrp.htm)) reviewed the scientific evidence for CYP450 genotyping (genetic testing) and the use of selective serotonin reuptake inhibitor (SSRI) drugs to treat depression in adults and developed a recommendation statement about the appropriate use of this testing. This brief summary of the EGAPP™ recommendation statement can help the general public understand what is intended by the EGAPP™ recommendation and where to find more information.

**This information may be helpful for adults who have been diagnosed with depression and are considering CYP450 genetic testing to help with treatment decisions using a class of drugs known as SSRIs. Examples of SSRI drugs include citalopram, fluoxetine, fluvoxamine, paroxetine, and sertraline. You may be familiar with some of the brand names, such as Celexa®, Prozac®, Luvox®, Paxil® or Zoloft®.**

**Disclaimer:** Our office does not offer medical advice to individuals, nor does it endorse the use of specific prescription drugs. If you have specific concerns about your health, please discuss them with your doctor.

#### What is the purpose of genetic testing for people prescribed SSRI drugs?

Genetic testing is being marketed as a way to find out how a person metabolizes SSRI drugs — whether they might need a higher or lower dose, if they have a greater chance of severe side effects, or if they need a different type of medication.

#### What is depression?

Depression is a deep sadness that won't go away. Symptoms can include feeling sad, anxious, or "empty" for more than two weeks, having trouble sleeping, appetite changes, loss of interest in doing things once enjoyed, feeling restless and cranky, nagging physical symptoms that don't get better with treatment (like chronic pain), trouble paying attention, making decisions, or remembering, feeling tired all the time, feeling guilty, hopeless, or worthless, thoughts of suicide or death.

#### How is depression treated?

Depression is treatable. The most common treatments for depression are antidepressant drugs, counseling, or a combination of the two. SSRIs are a common antidepressant medication.

#### Who developed the CYP450 genetic testing recommendation?

The EGAPP™ Working Group is made up of scientists and health care experts who review available research and evidence to make recommendations about the use of genetic tests. This independent, nongovernment body includes representatives from clinical practice, public health, laboratory practice, genomics, epidemiology, economics, ethics, policy, and health technology assessment.

#### Did EGAPP™ recommend using CYP450 genetic testing?

- **NO:** The EGAPP™ Working Group did not find enough evidence to determine conclusively whether CYP450 genetic testing should or should not be used to help adult patients with depression and their health care providers make decisions about beginning SSRI treatment.
- The EGAPP™ Working Group discouraged the use of CYP450 genetic testing to guide decisions about beginning SSRI treatment in adults with depression until more studies evaluating the potential benefits and harms are performed.

#### Other Information

##### How do I find out more about depression and SSRI drugs?

You should talk to your mental healthcare provider if you have questions about CYP450 genetic testing, depression and/or your use of SSRIs.

The Web sites below provide additional information on depression and SSRI medication.

- [Depression, National Institutes of Health \(www.nimh.nih.gov/health/publications/depression/index.shtml\)](http://www.nimh.nih.gov/health/publications/depression/index.shtml)
- [Depression, MedlinePlus \(www.nlm.nih.gov/medlineplus/depression.html\)](http://www.nlm.nih.gov/medlineplus/depression.html)
- [Treatment Questions, Mental Health Work Group, Centers for Disease Control and Prevention \(www.cdc.gov/mentalhealth/treatment.htm\)](http://www.cdc.gov/mentalhealth/treatment.htm)
- [Antidepressant Medicines – A Guide for Adults with Depression, AHRQ \(effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productID=10&returnpage=\)](http://effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productID=10&returnpage=)
- [Antidepressants, MedlinePlus \(www.nlm.nih.gov/medlineplus/antidepressants.html\)](http://www.nlm.nih.gov/medlineplus/antidepressants.html)

