GENES ON THE GENETIC RENAL PANEL

**ADAMTS13** (A Disintegrin and Metalloproteinase with a Thrombospondin Type 1 Motif, member 13)

**C3** (Complement Component 3)

**CFB** (Complement Factor B)

**CFH** (Complement Factor H)

**CFHR5** (Complement Factor H Related 5)

**CFI** (Complement Factor I)

**DGKE** (Diacylglycerol Kinase, Epsilon)

**G6PD** (Glucose-6-phosphate dehydrogenase)

**MCP** (Membrane Co-Factor Protein or CD46)

**MMACHC** (Methylmalonic Aciduria (Cobalamin Deficiency) CblC Type, With Homocystinuria)

**PLG** (Plasminogen)

**THBD** (Thrombomodulin)

**MLPA** (CFH-CFHR5 genomic region CNV analysis)

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Genetic Renal Panel

**GENETIC TESTING**

A comprehensive test for your patients with

**Thrombotic Microangiopathies**

**OR**

**C3 Glomerulopathies**

Molecular Otolaryngology and Renal Research Laboratories

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Genetic Renal Panel Solve Rate


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Genetic Renal Panel

**GENETIC TESTING**
In the past, persons diagnosed with complement-mediated kidney disease required multiple tests to attempt to identify the genetic cause of their disease. The Genetic Renal Panel is a comprehensive test for patients with:

- **Thrombotic Microangiopathies (TMAs)**
  - Thrombotic thrombocytopenic purpura (TTP)
  - Complement-mediated disease (aHUS)
  - G6PD deficiency
  - Cobalamin deficiency

- **C3 Glomerulopathy (C3G)**
  - Dense Deposit Disease (DDD)
  - C3 Glomerulonephritis (C3GN)

**Spectrum of variants identified using the Genetic Renal Panel**


The University of Iowa Molecular Otolaryngology & Renal Research Laboratories offers the Genetic Renal Panel - one test that is:

- **Comprehensive** – tests for all genes known to be associated with a variety of TMAs, and C3Gs.
- **Easy** – patient provides one blood sample.
- **Fast** – average turn around time of 21 days.
- **Convenient** – blood sample is taken in local doctor’s office.
- **Accurate** – 99% analytical specificity.
- **Diagnostic** – provides a diagnosis and guide to treatment, transplantation and genetic counseling.
- **Personalized** – results are discussed at a multidisciplinary meeting that includes physicians, clinical experts, scientists and bioinformaticians.
- **Collaborative** – MORL will work directly with your physician or genetic counselor to ensure that test results are interpreted accurately.
- **Inexpensive and efficient** – one test versus many tests.

Helping you solve the puzzle of complement-mediated diseases

To order comprehensive testing for your patient please visit our website at: https://morl.lab.uiowa.edu

A comprehensive evaluation of the complement system requires four types of data to offer to your patient the best chance of accurately defining the cause and consequence of complement dysregulation.

- **Measuring Complement Function** – Measuring and following complement activity can predict disease status (active vs. inactive) and response to therapy.
- **Complement biomarker profiling** – Specific biomarkers provide a detailed and mechanistic understanding of the underlying complement pathology to add to disease definition. By defining a complement pathway signature, biomarkers can be useful to follow disease activity and/or severity in the clinical setting.

**Identifying Acquired Drivers of Disease** – Identifying acquired drivers of disease such as antibodies to the C3 convertase, factor H and factor B provides a metric to follow a patient's clinical course.