

September/October, 2005

Dear Colleague:

New Tests

We are introducing a number of new tests in this letter including several related to Ashkenazi Jewish genetic diseases:

- **Ashkenazi Jewish GenotypR™**– Carrier Panel tests for 31 mutations associated with 8 diseases for pre-pregnancy evaluation of disease risk.
- Individual GenotypR™ assays for **Bloom Syndrome, Canavan Disease, Familial Dysautonomia, Fanconi Anemia GrpC, Gaucher Disease, Mucopolidosis Type IV, Niemann-Pick Disease, Tay-Sachs Disease** with separate carrier, diagnostic and fetal study testing.
- **Heat Shock Protein 70 (Hsp70) Autoantibodies** – human hsp are elevated in a number of autoimmune, infectious and inflammatory conditions.
- ***Mycobacterium tuberculosis* Complex DNA DetectR™** by real time PCR detects the MTb complex of *M. tuberculosis*, *M. bovis*, *M. bovis* BCG, *M. africanum*, *M. microti*, *M. canettii*. This discrete group of organisms share a DNA homology of greater than 95%.
- **N-Telopeptides Serum** is used in assessing antiresorptive therapy in osteoporosis.

We have also created a new panel **MTHFR C677T/A1298C GenotypR™** combining MTHFR mutations C677T and A1298 for assessing homocysteine metabolism. These two mutations are associated with neural tube defects and cardiovascular disease due to hyperhomocysteinemia and lowered plasma folate levels. This new panel will replace the individual and reflex panels for the MTHFR mutations (see **Test Discontinuations**).

Fee for Attempted Assay Performance That Does Not Generate a Reportable Result

Specialty has determined that it is not necessary at this time to implement the fee for attempted assay performance previously announced as effective September 1, 2005. We have introduced internal production methods to help alleviate the need for these fees. If you would like more information, please call Client Services at 800-421-4449.

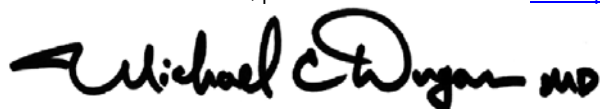
Cystic Fibrosis Report Changes

In order to assure faster, more efficient reporting for Cystic Fibrosis GenotypR™, *Specialty* is now issuing the results and interpretive analysis via the standard electronic interface, fax and mail routes. The specialized color reports will no longer be issued; risk revision tables will still be posted on our Web site www.specialtylabs.com. Because the report contains information on contingencies that would affect the interpretive analysis such as ethnicity and family history of disease, *Specialty* will no longer delay result release and attempt to obtain any data not included on the initial requisition. We will, however, continue to review results in light of new information when it is received. If you have any questions regarding this change in procedure, please call Client Services at 800-421-4449.

Maternal Cell Contamination (MCC)

All prenatal amniotic fluid specimens for genetic testing must be accompanied by a maternal blood sample for analysis of possible maternal cell contamination. If necessary to clarify a result interpretation (e.g., the fetal sample has the same mutation as the mother), *Specialty* will perform a Maternal Cell Contamination test (#5365) for an additional fee. This testing will extend the TAT about 2 weeks. If you have any questions, please contact Client Technical Services at 800-421-4449 or ask to speak to Milhan Telatar, Ph.D. our Scientific Director of Molecular Genetics.

For additional information, please visit our Web site at www.specialtylabs.com or contact Client Services at 800-421-4449.



Michael C. Dugan, M.D.
Vice President and Laboratory Director

New from *Specialty*

Effective Tuesday, October 18, 2005 or as noted

5206 Ashkenazi Jewish GenotypR™ - Carrier Panel (includes common mutations for Bloom Syndrome, Canavan Disease, Familial Dysautonomia, Fanconi Anemia GrpC, Gaucher Disease, Muclolipidosis Type IV, Niemann-Pick Disease, Tay-Sachs Disease) effective 10/18/05

| Component | Method | Reference Range | Units |
|-------------------------------|--|-----------------|-----------|
| AJ Panel carrier study | PCR | | By report |
| Specimen/Stability | 5.0 (3.0) mL Whole Blood EDTA (Lavender top) Ambient 3 days; Refrigerated 3 days | | |
| Collection Instructions | EDTA is preferred but ACD is also acceptable. Heparinized whole blood is not acceptable. Ambient is preferred, refrigerated is acceptable; frozen is not acceptable. | | |
| Clinical Utility | Detects 31 mutations/polymorphisms in 8 genes (Tay - Sachs disease, Canavan Disease, Familial Dysautonomia, Gaucher Disease, Bloom Syndrome, Fanconi Anemia GrpC, Niemann-Pick Disease, and Muclolipidosis Type IV) responsible for conditions that are predominantly found in persons of Ashkenazi ancestry. | | |
| Schedule | Thursday | | |
| Turnaround Time | 3-10 days | | |
| CPT Code | 83891, 83892x2, 83896x31, 83901, 83912 | | |
| Notes | Carrier detection will be performed only for adult patients and pregnant minors. Prior carrier risk (the risk, before testing, that an asymptomatic patient is carrier) and revised carrier risk (the risk that the same patient is a carrier after a negative test), based on family history and ethnicity are provided in a patient-specific report. For specific diagnostic workup, refer to individual tests below. Please use specialized AJ GenotypR™ Requisition Form, which requests the clinical information necessary for interpretation of results, (patient ethnicity and family history). Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com | | |

The following tests are all related to the Ashkenazi-Jewish Panel offering and have the same effective date, schedule and assay time as the panel listing. Specimen requirements and collection instructions are the same as for the panel listing for all Carrier and Diagnostic testing. Instructions for fetal studies are included with the individual test descriptions.

5216 Bloom Syndrome GenotypR™ - Carrier Testing

| Component | Method | Reference Range | Units |
|---------------------------------------|---|-----------------|-----------|
| Bloom Syndrome Carrier Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects a single mutation (2281del6/ins7) in the Bloom Syndrome gene for carrier assessment in adult patients. The 2281del6/ins7 mutation is responsible for ~97% of mutant alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896, 83901, 83912 | | |
| Notes | same as A-J Panel above | | |

5217 Bloom Syndrome GenotypR™ - Diagnostic Testing

| Component | Method | Reference Range | Units |
|--|--|-----------------|-----------|
| Bloom Syndrome Diagnostic Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects a single mutation (2281del6/ins7) in the Bloom Syndrome gene for support of diagnosis in a symptomatic patient. The 2281del6/ins7 mutation is responsible for ~97% of mutant alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com | | |

5218 Bloom Syndrome GenotypR™ - Fetal Study reflex to MCC

| Component | Method | Reference Range | Units |
|-----------------------------------|---|-----------------|-----------|
| Bloom Syndrome Fetal Study | PCR | | By report |
| Specimen/Stability | 20 (10) mL Amniotic Fluid; Ambient 24 hr 5 (3) mL of Maternal Whole Blood EDTA; Ambient 3 days, Refrigerated 3 days | | |
| Collection Instructions | Amniotic Fluid: Ship immediately, do not refrigerate or freeze. Maternal Whole Blood must accompany amniotic fluid specimen. | | |
| Alternate Specimens | Cultured Amniocytes: Do not refrigerate or freeze. Ship flask at confluency, topped off with culture media. An internal code will be added at the laboratory for cell culture. For chorionic villus specimens, please contact Technical Services. Maternal blood is <u>required</u> for potential studies of maternal cell contamination (MCC) of the fetal DNA. | | |
| Clinical Utility | Detects a single mutation (2281del6/ins7) in the Bloom Syndrome gene for prenatal diagnosis of an at-risk fetus. The 2281del6/ins7 mutation is responsible for ~97% of mutant alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above (when cell culture required, add ~2 weeks) | | |
| CPT Code | 83891, 83892x2, 83896, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our website: www.specialtylabs.com . Maternal blood should accompany any prenatal specimen. If warranted, test will reflex to #5365 Maternal Cell Contamination for an additional fee and extended turnaround time. | | |

5226 Canavan Disease GenotypR™ - Carrier Testing

| Component | Method | Reference Range | Units |
|--|--|-----------------|-----------|
| Canavan Disease Carrier Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 4 Canavan Disease mutations (433(-2)A>G, Y231X (C>A), E285A, A305E) and a benign variant, Y231Y (C>T) for carrier assessment in adult patients. These mutations are responsible for ~99% of mutant Canavan alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x5, 83901, 83912 | | |
| Notes | same as A-J Panel above | | |

5227 Canavan Disease GenotypR™ - Diagnostic Testing

| Component | Method | Reference Range | Units |
|---|---|-----------------|-----------|
| Canavan Disease Diagnostic Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 4 Canavan Disease mutations (433(-2)A>G, Y231X (C>A), E285A, A305E) and a benign variant, Y231Y (C>T) for support of diagnosis in a symptomatic patient. These mutations are responsible for ~99% of mutant Canavan alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x5, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com | | |

5228 Canavan Disease GenotypR™ - Fetal Study reflex to MCC

| Component | Method | Reference Range | Units |
|------------------------------------|--|-----------------|-----------|
| Canavan Disease Fetal Study | PCR | | By report |
| Specimen/Stability | 20 (10) mL Amniotic Fluid; Ambient 24 hr 5 (3) mL of Maternal Whole Blood EDTA; Ambient 3 days, Refrigerated 3 days | | |
| Collection Instructions | Amniotic Fluid: Ship immediately, do not refrigerate or freeze. Maternal Whole Blood must accompany amniotic fluid specimen. | | |
| Alternate Specimens | Cultured Amniocytes: Do not refrigerate or freeze. Ship flask at confluency, topped off with culture media. An internal code will be added at the laboratory for cell culture. For chorionic villus specimens, please contact Technical Services. Maternal blood is <u>required</u> for potential studies of maternal cell contamination (MCC) of the fetal DNA. | | |
| Clinical Utility | Detects 4 Canavan Disease mutations (433(-2)A>G, Y231X (C>A), E285A, A305E) and a benign variant, Y231Y (C>T) for prenatal diagnosis of an at-risk fetus. These mutations are responsible for ~99% of mutant Canavan alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above (when cell culture required, add ~2 weeks) | | |
| CPT Code | 83891, 83892x2, 83896x5, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com . Maternal blood should accompany any prenatal specimen. If warranted, test will reflex to #5365 Maternal Cell Contamination for an additional fee and extended turnaround time. | | |

5236 Familial Dysautonomia GenotypR™ - Carrier Testing

| Component | Method | Reference Range | Units |
|--|--|-----------------|-----------|
| Familial Dysautonomia Carrier Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 2 Familial Dysautonomia mutations (R696P, IVS20(+6)T>C) for carrier assessment in adult patients. These mutations are responsible for ~99% of mutant Familial Dysautonomia alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x2, 83901, 83912 | | |
| Notes | same as A-J Panel above | | |

5237 Familial Dysautonomia GenotypR™ - Diagnostic Testing

| Component | Method | Reference Range | Units |
|---|---|-----------------|-----------|
| Familial Dysautonomia Diagnostic Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 2 Familial Dysautonomia mutations (R696P, IVS20(+6)T>C) for support of diagnosis in a symptomatic patient. These mutations are responsible for ~99% of mutant Familial Dysautonomia alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x2, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com | | |

5238 Familial Dysautonomia GenotypR™ - Fetal Study reflex to MCC

| Component | Method | Reference Range | Units |
|--|--|-----------------|-----------|
| Familial Dysautonomia Fetal Study | PCR | | By report |
| Specimen/Stability | 20 (10) mL Amniotic Fluid; Ambient 24 hr 5 (3) mL of Maternal Whole Blood EDTA; Ambient 3 days, Refrigerated 3 days | | |
| Collection Instructions | Amniotic Fluid: Ship immediately, do not refrigerate or freeze. Maternal Whole Blood must accompany amniotic fluid specimen. | | |
| Alternate Specimens | Cultured Amniocytes: Do not refrigerate or freeze. Ship flask at confluency, topped off with culture media. An internal code will be added at the laboratory for cell culture. For chorionic villus specimens, please contact Technical Services. Maternal blood is <u>required</u> for potential studies of maternal cell contamination (MCC) of the fetal DNA. | | |
| Clinical Utility | Detects 2 Familial Dysautonomia mutations (R696P, IVS20(+6)T>C) for prenatal diagnosis of an at-risk fetus. These mutations are responsible for ~99% of mutant Familial Dysautonomia alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above (when cell culture required, add ~2 weeks) | | |
| CPT Code | 83891, 83892x2, 83896x2, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com . Maternal blood should accompany any prenatal specimen. If warranted, test will reflex to #5365 Maternal Cell Contamination for an additional fee and extended turnaround time. | | |

5246 Fanconi Anemia GrpC GenotypR™ - Carrier Testing

| Component | Method | Reference Range | Units |
|--|---|-----------------|-----------|
| Fanconi Anemia GrpC Carrier Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 2 Fanconi Anemia GrpC mutations (322delG, IVS4(+4)A>T) for carrier assessment in adult patients. These mutations are responsible for ~99% of mutant Fanconi Anemia GrpC alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x2, 83901, 83912 | | |
| Notes | same as A-J Panel above | | |

5247 Fanconi Anemia GrpC GenotypR™ - Diagnostic Testing

| Component | Method | Reference Range | Units |
|---|--|-----------------|-----------|
| Fanconi Anemia GrpC Diagnostic Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 2 Fanconi Anemia GrpC mutations (322delG, IVS4(+4)A>T) for support of diagnosis in a symptomatic patient. These mutations are responsible for ~99% of mutant Fanconi Anemia GrpC alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x2, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com | | |

5248 Fanconi Anemia GrpC GenotypR™ - Fetal Study reflex to MCC

| Component | Method | Reference Range | Units |
|--|--|-----------------|-----------|
| Fanconi Anemia GrpC Fetal Study | PCR | | By report |
| Specimen/Stability | 20 (10) mL Amniotic Fluid; Ambient 24 hr 5 (3) mL of Maternal Whole Blood EDTA; Ambient 3 days, Refrigerated 3 days | | |
| Collection Instructions | Amniotic Fluid: Ship immediately, do not refrigerate or freeze. Maternal Whole Blood must accompany amniotic fluid specimen. | | |
| Alternate Specimens | Cultured Amniocytes: Do not refrigerate or freeze. Ship flask at confluency, topped off with culture media. An internal code will be added at the laboratory for cell culture. For chorionic villus specimens, please contact Technical Services. Maternal blood is <u>required</u> for potential studies of maternal cell contamination (MCC) of the fetal DNA. | | |
| Clinical Utility | Detects 2 Fanconi Anemia GrpC mutations (322delG, IVS4(+4)A>T) for prenatal diagnosis of an at-risk fetus. These mutations are responsible for ~99% of mutant Fanconi Anemia GrpC alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above (when cell culture required, add ~2 weeks) | | |
| CPT Code | 83891, 83892x2, 83896x2, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com . Maternal blood should accompany any prenatal specimen. If warranted, test will reflex to #5365 Maternal Cell Contamination for an additional fee and extended turnaround time. | | |

5256 Gaucher Disease GenotypR™ - Carrier Testing

| Component | Method | Reference Range | Units |
|--|--|-----------------|-----------|
| Gaucher Disease Carrier Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 8 Gaucher Disease mutations (84G>GG, IVS2(+1)G>A, N370S, Del55bp, V394L, D409H, L444P, R496H) for carrier assessment in adult patients. These mutations are responsible for ~96% of mutant Gaucher alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x8, 83901, 83912 | | |
| Notes | same as A-J Panel above | | |

5257 Gaucher Disease GenotypR™ - Diagnostic Testing

| Component | Method | Reference Range | Units |
|---|---|-----------------|-----------|
| Gaucher Disease Diagnostic Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 8 Gaucher Disease mutations (84G>GG, IVS2(+1)G>A, N370S, Del55bp, V394L, D409H, L444P, R496H) for support of diagnosis in a symptomatic patient. These mutations are responsible for ~96% of mutant Gaucher alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x8, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com | | |

5258 Gaucher Disease GenotypR™ - Fetal Study reflex to MCC

| Component | Method | Reference Range | Units |
|------------------------------------|--|-----------------|-----------|
| Gaucher Disease Fetal Study | PCR | | By report |
| Specimen/Stability | 20 (10) mL Amniotic Fluid; Ambient 24 hr 5 (3) mL of Maternal Whole Blood EDTA; Ambient 3 days, Refrigerated 3 days | | |
| Collection Instructions | Amniotic Fluid: Ship immediately, do not refrigerate or freeze. Maternal Whole Blood must accompany amniotic fluid specimen. | | |
| Alternate Specimens | Cultured Amniocytes: Do not refrigerate or freeze. Ship flask at confluency, topped off with culture media. An internal code will be added at the laboratory for cell culture. For chorionic villus specimens, please contact Technical Services. Maternal blood is <u>required</u> for potential studies of maternal cell contamination (MCC) of the fetal DNA. | | |
| Clinical Utility | Detects 8 Gaucher Disease mutations (84G>GG, IVS2(+1)G>A, N370S, Del55bp, V394L, D409H, L444P, R496H) for prenatal diagnosis of an at-risk fetus. These mutations are responsible for ~96% of mutant Gaucher alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above (when cell culture required, add ~2 weeks) | | |
| CPT Code | 83891, 83892x2, 83896x8, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com . Maternal blood should accompany any prenatal specimen. If warranted, test will reflex to #5365 Maternal Cell Contamination for an additional fee and extended turnaround time. | | |

5266 Mucopolipidosis Type IV GenotypR™ - Carrier Testing

| Component | Method | Reference Range | Units |
|--|--|-----------------|-----------|
| Mucopolipidosis Type IV Carrier Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 2 Mucopolipidosis Type IV mutations (Del6.4kb, IVS3(-2)A>G) for carrier assessment in adult patients. These mutations are responsible for ~95% of mutant Mucopolipidosis Type IV alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x2, 83901, 83912 | | |
| Notes | same as A-J Panel above | | |

5267 Mucopolipidosis Type IV GenotypR™ - Diagnostic Testing

| Component | Method | Reference Range | Units |
|---|---|-----------------|-----------|
| Mucopolipidosis Type IV Diagnostic Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 2 Mucopolipidosis Type IV mutations (Del6.4kb, IVS3(-2)A>G) for support of diagnosis in a symptomatic patient. These mutations are responsible for ~95% of mutant Mucopolipidosis Type IV alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x2, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com | | |

5268 Mucopolipidosis Type IV GenotypR™ - Fetal Study reflex to MCC

| Component | Method | Reference Range | Units |
|--|--|-----------------|-----------|
| Mucopolipidosis Type IV Fetal Study | PCR | | By report |
| Specimen/Stability | 20 (10) mL Amniotic Fluid; Ambient 24 hr 5 (3) mL of Maternal Whole Blood EDTA; Ambient 3 days, Refrigerated 3 days | | |
| Collection Instructions | Amniotic Fluid: Ship immediately, do not refrigerate or freeze. Maternal Whole Blood must accompany amniotic fluid specimen. | | |
| Alternate Specimens | Cultured Amniocytes: Do not refrigerate or freeze. Ship flask at confluency, topped off with culture media. An internal code will be added at the laboratory for cell culture. For chorionic villus specimens, please contact Technical Services. Maternal blood is <u>required</u> for potential studies of maternal cell contamination (MCC) of the fetal DNA. | | |
| Clinical Utility | Detects 2 Mucopolipidosis Type IV mutations (Del6.4kb, IVS3(-2)A>G) for prenatal diagnosis of an at-risk fetus. These mutations are responsible for ~95% of mutant Mucopolipidosis Type IV alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above (when cell culture required, add ~2 weeks) | | |
| CPT Code | 83891, 83892x2, 83896x2, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com . Maternal blood should accompany any prenatal specimen. If warranted, test will reflex to #5365 Maternal Cell Contamination for an additional fee and extended turnaround time. | | |

5276 Niemann-Pick Disease GenotypR™ - Carrier Testing

| Component | Method | Reference Range | Units |
|---|--|-----------------|-----------|
| Niemann-Pick Disease Carrier Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 4 Niemann-Pick Disease mutations (L302P, 1bp del P330fs, R496L, DelR608) for carrier assessment in adult patients. These mutations are responsible for ~92% of mutant Niemann-Pick alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x4, 83901, 83912 | | |
| Notes | same as A-J Panel above | | |

5277 Niemann-Pick Disease GenotypR™ - Diagnostic Testing

| Component | Method | Reference Range | Units |
|--|---|-----------------|-----------|
| Niemann-Pick Disease Diagnostic Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 4 Niemann-Pick Disease mutations (L302P, 1bp del P330fs, R496L, DelR608) for support of diagnosis in a symptomatic patient. These mutations are responsible for ~92% of mutant Niemann-Pick alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x4, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com | | |

5278 Niemann-Pick Disease GenotypR™ - Fetal Study reflex to MCC

| Component | Method | Reference Range | Units |
|---|--|-----------------|-----------|
| Niemann-Pick Disease Fetal Study | PCR | | By report |
| Specimen/Stability | 20 (10) mL Amniotic Fluid; Ambient 24 hr 5 (3) mL of Maternal Whole Blood EDTA; Ambient 3 days, Refrigerated 3 days | | |
| Collection Instructions | Amniotic Fluid: Ship immediately, do not refrigerate or freeze. Maternal Whole Blood must accompany amniotic fluid specimen. | | |
| Alternate Specimens | Cultured Amniocytes: Do not refrigerate or freeze. Ship flask at confluency, topped off with culture media. An internal code will be added at the laboratory for cell culture. For chorionic villus specimens, please contact Technical Services. Maternal blood is <u>required</u> for potential studies of maternal cell contamination (MCC) of the fetal DNA. | | |
| Clinical Utility | Detects 4 Niemann-Pick Disease mutations (L302P, 1bp del P330fs, R496L, DelR608) for prenatal diagnosis of an at-risk fetus. | | |
| Schedule/TAT | same as A-J Panel above (when cell culture required, add ~2 weeks) | | |
| CPT Code | 83891, 83892x2, 83896x4, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com . Maternal blood should accompany any prenatal specimen. If warranted, test will reflex to #5365 Maternal Cell Contamination for an additional fee and extended turnaround time. | | |

5286 Tay-Sachs Disease GenotypR™ - Carrier Testing

| Component | Method | Reference Range | Units |
|--|--|-----------------|-----------|
| Tay-Sachs Disease Carrier Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 5 Tay-Sachs Disease mutations (Del7.6kb, G269S, IVS9(+1)G>A, 1278insTATC, IVS 12(+1)G>C) and 2 benign variants (R247W, R249W) for carrier assessment in adult patients. These mutations are responsible for ~98% of mutant Tay-Sachs alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x7, 83901, 83912 | | |
| Notes | same as A-J Panel above | | |

5287 Tay-Sachs Disease GenotypR™ - Diagnostic Testing

| Component | Method | Reference Range | Units |
|---|---|-----------------|-----------|
| Tay-Sachs Disease Diagnostic Testing | PCR | | By report |
| Specimen/Stability | same as A-J Panel above | | |
| Collection Instructions | same as A-J Panel above | | |
| Clinical Utility | Detects 5 Tay-Sachs Disease mutations (Del7.6kb, G269S, IVS9(+1)G>A, 1278insTATC, IVS 12(+1)G>C) and 2 benign variants (R247W, R249W) for support of diagnosis in a symptomatic patient. These mutations are responsible for ~98% of mutant Tay-Sachs alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above | | |
| CPT Code | 83891, 83892x2, 83896x7, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com | | |

5288 Tay-Sachs Disease GenotypR™ - Fetal Study reflex to MCC

| Component | Method | Reference Range | Units |
|--------------------------------------|--|-----------------|-----------|
| Tay-Sachs Disease Fetal Study | PCR | | By report |
| Specimen/Stability | 20 (10) mL Amniotic Fluid; Ambient 24 hr 5 (3) mL of Maternal Whole Blood EDTA; Ambient 3 days, Refrigerated 3 days | | |
| Collection Instructions | Amniotic Fluid: Ship immediately, do not refrigerate or freeze. Maternal Whole Blood must accompany amniotic fluid specimen. | | |
| Alternate Specimens | Cultured Amniocytes: Do not refrigerate or freeze. Ship flask at confluency, topped off with culture media. An internal code will be added at the laboratory for cell culture. For chorionic villus specimens, please contact Technical Services. Maternal blood is <u>required</u> for potential studies of maternal cell contamination (MCC) of the fetal DNA. | | |
| Clinical Utility | Detects 5 Tay-Sachs Disease mutations (Del7.6kb, G269S, IVS9(+1)G>A, 1278insTATC, IVS 12(+1)G>C) and 2 benign variants (R247W, R249W) for prenatal diagnosis of an at-risk fetus. These mutations are responsible for ~98% of mutant Tay-Sachs alleles in Ashkenazi Jewish Population. | | |
| Schedule/TAT | same as A-J Panel above (when cell culture required, add ~2 weeks) | | |
| CPT Code | 83891, 83892x2, 83896x7, 83901, 83912 | | |
| Notes | Please use specialized AJ GenotypR™ Requisition Form. Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com . Maternal blood should accompany any prenatal specimen. If warranted, test will reflex to #5365 Maternal Cell Contamination for an additional fee and extended turnaround time. | | |

Additional New Tests from *Specialty*

3266 Heat Shock Protein 70 (Hsp70) Autoantibodies (effective 11/01/05)

| Component | Method | Reference Range | Units |
|------------------------------|---|-----------------|-------|
| Hsp 70 Autoantibodies | EIA | <1.2 | Index |
| Specimen/Stability | 1.0 (0.5) mL Serum Ambient 7 days; Refrigerated 14 days; Frozen 30 days | | |
| Collection Instructions | Collect whole blood by standard venipuncture technique. Allow blood to fully clot and remove the serum from the clot promptly. Specimens collected in serum separation tubes (SST) should be centrifuged and serum removed from the gel separator into a different tube and shipped. Plasma samples will be rejected. | | |
| Clinical Utility | Hsp70 autoantibodies have been found in patients with autoimmune inner ear diseases including Ménière' disease. | | |
| Schedule | Wednesday | | |
| Turnaround Time | 1-8 days | | |
| CPT Code | 83520 | | |

Immunohistochemistry Stain Update (effective immediately)

| | |
|-------------------------|---|
| IHC203 | MART-1 |
| Specimen Req | Formalin-fixed, paraffin-embedded tissue; Ambient; unstained, positively charged slides (4) are also acceptable. |
| Clinical Utility | IHC stains are useful for identification of antigens present in paraffin-embedded tissues. Properly selected panels may aid in the identification of tumor type and subclassification. Additional markers may be useful in assessing proliferation (Ki67) or prognosis (e.g., bcl-2 or HER-2/ <i>neu</i>) in selected tumor types. |
| Collection Notes | Shipping on cold pack is recommended during the warm weather months. Ship by overnight courier to <i>Specialty</i> . |
| Schedule | Monday-Sunday |
| Turnaround Time | 1-4 days |
| CPT Code | 88342 times the number of antibodies selected |
| Notes | Diagnostic code required for third party reimbursement. Please send copy of pathology report and other applicable tests. |
| Order Codes | 1857 IHC Stain & Diagnostic Interpretation: Pathologist Chooses 1-3 Stains 1859 IHC Stain & Diagnostic Interpretation: Pathologist Chooses 1-6 Stains 1854 IHC Stain & Interpretation: Client Chooses Stains 1856 IHC Stain Only: Client Chooses Stains |

4562 MTHFR C677T/A1298C GenotypR™ (effective 11/01/05)

| Component | Method | Reference Range | Units |
|---------------------------|---|-----------------|-----------|
| MTHFR C677T/A1298C | Invader | | By report |
| Specimen/Stability | 5.0 (3.0) mL EDTA Whole Blood (Lavender top) Ambient 72 hours; Refrigerated 72 hours | | |
| Collection Instructions | EDTA is preferred but ACD is also acceptable. Heparinized whole blood is not acceptable. Ambient is preferred, refrigerated is acceptable; frozen is not acceptable. | | |
| Clinical Utility | Two mutations in the MTHFR gene have been associated with an increased risk for neural tube defects (NTD) and cardiovascular disease (C677T and A1298C). Homozygosity for the C677T mutation or compound heterozygosity for C677T and A1298C is associated with reduced MTHFR activity. Decreased MTHFR activity leads to hyperhomocysteinemia and lowers plasma folate levels. | | |
| Schedule | Monday | | |
| Turnaround Time | 3-10 days | | |
| CPT Code | 83891, 83892x4, 83896x10, 83903x2, 83912 | | |
| Notes | Informed consent is required for residents of New York. Consent form is available on our Web site: www.specialtylabs.com . See Thrombotic AssessR™ for Obstetric Complications (#4555) for evaluation of recurrent fetal loss. | | |

7468 *Mycobacterium tuberculosis* Complex DNA DetectR™ (effective 10/18/05)

| Component | Method | Reference Range | Units |
|---|---|-----------------|--------------|
| <i>M. tuberculosis</i> Complex DNA | RT-PCR | | Not detected |
| Specimen/Stability | 2.0 (1.0) mL Sputum (Sterile tube) Ambient 24 hrs; Refrigerated 7 days | | |
| Collection Instructions | Collect sputum early in the morning from a deep, productive cough on 3 consecutive days. Place in sterile, leakproof container and ship ambient or on cold pack | | |
| Alternate Specimens | Whole Blood or Bone Marrow; Bronchoalveolar Lavage CSF, Culturette/Swab, Tissue, Fluid | | |
| Alternate Collection Instructions | Call Client Services 800-421-4449 for collection instructions on alternate specimens | | |
| Clinical Utility | A variety of sterile and non-sterile clinical specimen sources for direct detection of <i>M. tuberculosis</i> complex DNA can be tested. This PCR assay provides a lower limit of sensitivity at 400 cells/mL. | | |
| Schedule | Tuesday, Friday | | |
| Turnaround Time | 2-5 days | | |
| CPT Code | 87556 | | |
| Notes | <i>M. tuberculosis</i> complex consists of the following: <i>M. tuberculosis</i> , <i>M. bovis</i> , <i>M. bovis</i> BCG, <i>M. africanum</i> , <i>M. microti</i> , <i>M. canettii</i> . This discrete group of organisms share a DNA homology of greater than 95%. | | |

4266 N-Telopeptide Serum (effective 11/01/05)

| Component | Method | Reference Range | Units |
|-------------------------|---|--|------------------|
| N-Telopeptide Serum | EIA | Females 25-49 y 6.2 – 19.0 Males 31-80 y 5.4 – 24.2 | nm BCE nm BCE |
| Specimen/Stability | 1.0 (0.5) mL Serum Frozen 2 months | | |
| Collection Instructions | Collect whole blood by standard venipuncture technique. Allow blood to fully clot and remove the serum from the clot promptly. Specimens collected in serum separation tubes (SST) should be centrifuged and serum removed from the gel separator into a different tube and shipped. Specimens sent in SST tubes will be rejected. Plasma samples will also be rejected. | | |
| Clinical Utility | Serum N-Telopeptide (NTx) levels may be used in predicting skeletal response (bone mineral density) to antiresorptive therapy and in monitoring bone resorption changes following initiation of antiresorptive therapy. Prior to initiating antiresorptive therapy, a serum NTx level is used to determine the probability for a decrease in bone mineral density (BMD) after one year in postmenopausal women treated with hormonal antiresorptive therapy relative to those treated with calcium supplementation. | | |
| Schedule | Wednesday | | |
| Turnaround Time | 1-8 days | | |
| CPT Code | 82523 | | |
| Notes | For urine specimens, please order #4266U; N-Telopeptides with Creatinine. | | |

Test Changes

Allergen Name Changes effective immediately

| | | | |
|------|---|------|--|
| F93 | Allergen-Cacao IgE | F93 | Allergen-Cacao (Chocolate) IgE |
| F93G | Allergen-Cacao IgG | F93G | Allergen-Cacao (Chocolate) IgG |
| E1 | Allergen-Cat Dander IgE | E1 | Allergen-Cat Epithelium/Dander IgE |
| E1G | Allergen-Cat Dander IgG | E1G | Allergen-Cat Epithelium/Dander IgG |
| G1 | Allergen-Sweet Vernal IgE | G1 | Allergen-Sweet Vernal Grass IgE |
| G13 | Allergen-Velvet IgE | G13 | Allergen-Velvet Grass IgE |
| G6 | Allergen-Timothy IgE | G6 | Allergen-Timothy Grass IgE |
| M6 | Allergen- <i>Alternaria alternata</i> IgE | M6 | Allergen- <i>Alternaria alternata/tenuis</i> IgE |
| M6G | Allergen- <i>Alternaria alternata</i> IgG | M6G | Allergen- <i>Alternaria alternata/tenuis</i> IgG |
| T6 | Allergen-Mountain Juniper IgE | T6 | Allergen-Mountain Juniper/Cedar IgE |
| W9 | Allergen-English Plantain IgE | W9 | Allergen-Plantain (English), Ribwort IgE |

Allergen Test Code Changes effective 10/18/05

| | | | |
|--------|--|-------|--|
| RF202G | Allergen-Cashew Nut IgG | F202G | Allergen-Cashew Nut IgG |
| RF203G | Allergen-Pistachio IgG | F203G | Allergen-Pistachio IgG |
| RF260G | Allergen-Broccoli IgG | F260G | Allergen-Broccoli IgG |
| RM207 | Allergen- <i>Aspergillus niger</i> IgE | M207 | Allergen- <i>Aspergillus niger</i> IgE |
| RM207G | Allergen- <i>Aspergillus niger</i> IgG | M207G | Allergen- <i>Aspergillus niger</i> IgG |

Test Changes

| Test Code | Effective Date | Test Name | Specific Change | Also Affected |
|-----------|----------------|-----------------------------------|---|---------------|
| 5368 | 10/04/05 | CF70™ Fetal Study | <u>Name and Reflex</u> CF70™ Fetal Study w/ Reflex to MCC A maternal blood specimen must be sent with the fetal sample so that MCC testing can be performed if a possibility of maternal cell contamination exists. | |
| 5363 | 10/04/05 | Fragile X Fetal Study | <u>Name and Reflex</u> Fragile X Fetal Study w/ Reflex to MCC A maternal blood specimen must be sent with the fetal sample so that MCC testing can be performed if a possibility of maternal cell contamination exists. | |
| 7581 | 10/18/05 | Herpes Simplex Virus DNA DetectR™ | <u>Alternate Specimen</u> 5 (1.0) mL Whole Blood EDTA; Ambient is acceptable | |
| 4859 | Immediately | Copper Liver | <u>Specimen Stability</u> Tissue - Ambient 28 days, Refrigerated 28 days, Frozen 2 months Trace Metal Tissue - Ambient 28 days, Refrigerated 28 days, Frozen 2 months | |

| Test Code | Effective Date | Test Name | Specific Change | Also Affected | | | | | | | | | | | | |
|-----------------|----------------|--------------------------|---|---------------|----------|-------|----------|-------|----------|--------|----------|------------|-----------|-----------------|-----------|--|
| 3536 | Immediately | Iron Liver | <u>Specimen Stability</u> Tissue - Ambient 28 days, Refrigerated 28 days, Frozen 2 months Trace Metal Tissue - Ambient 28 days, Refrigerated 28 days, Frozen 2 months | | | | | | | | | | | | | |
| 4866U | Immediately | Magnesium 24 hr Urine | <u>Collection Instructions</u> Collect a 24 hour urine specimen. Add 10 mL of 6N HCl at start of collection. Record total volume in mL on both the container and requisition. | | | | | | | | | | | | | |
| 4866UR | Immediately | Magnesium Urine Random | <u>Collection Instructions</u> After voided midstream urine collection is complete, add 1 mL of 6N HCl per 100 mL urine. Mix the specimen and transfer a 10 mL aliquot of urine to a clean screw cap leakproof container. Refrigerated specimen is preferred. Ship within 24 hours of collection by overnight courier. | | | | | | | | | | | | | |
| 1369 | 10/18/05 | HLA A, B, C, DR DetectR™ | <u>CPT Codes</u> The code for each molecular probe (83896) was not calculated consistently. Other CPT codes for the tests listed are correct. The appropriate numbers of probes used for each HLA test are listed below: <table border="0" style="margin-left: 20px;"> <tr> <td>HLA-A</td> <td>83896x66</td> </tr> <tr> <td>HLA-B</td> <td>83896x28</td> </tr> <tr> <td>HLA-C</td> <td>83896x62</td> </tr> <tr> <td>HLA-DR</td> <td>83896x43</td> </tr> <tr> <td>HLA A, B C</td> <td>83896x156</td> </tr> <tr> <td>HLA A, B, C, DR</td> <td>83896x199</td> </tr> </table> | HLA-A | 83896x66 | HLA-B | 83896x28 | HLA-C | 83896x62 | HLA-DR | 83896x43 | HLA A, B C | 83896x156 | HLA A, B, C, DR | 83896x199 | 1376 HLA A DetectR™ 1377 HLA B DetectR™ 1378 HLA C DetectR™ 1379 HLA DR DetectR™ 1368 HLA A, B, C DetectR™ |
| HLA-A | 83896x66 | | | | | | | | | | | | | | | |
| HLA-B | 83896x28 | | | | | | | | | | | | | | | |
| HLA-C | 83896x62 | | | | | | | | | | | | | | | |
| HLA-DR | 83896x43 | | | | | | | | | | | | | | | |
| HLA A, B C | 83896x156 | | | | | | | | | | | | | | | |
| HLA A, B, C, DR | 83896x199 | | | | | | | | | | | | | | | |

Test Discontinuations

The following test(s) are no longer routinely available from *Specialty*. Whenever possible, alternate tests are recommended. Please note that if a test is designated as a “replacement,” contractual pricing will be copied from discontinued test to replacement test. Contractual pricing does not apply to alternate tests or sendout tests. Please contact Client Services or your Sales Representative if you have any questions.

| Test Code | Test Name | Reason | Alternate or Replacement Tests |
|-----------|---|------------------------------------|-----------------------------------|
| 1697 | FC Myeloma/Plasma Cell Disorder Panel (effective immediately) | Low volume. | No replacement identified to date |
| 4559 | MTHFR GenotypR™ (A1298C Mutation) (effective 11/01/05 as are tests below) | Offered as a panel - C677T/ A1298C | 4562 MTHFR C677T/A1298C GenotypR™ |
| 4560 | MTHFR GenotypR™ reflex to A1298C Mutation | Offered as a panel - C677T/A1298C | 4562 MTHFR C677T/A1298C GenotypR™ |
| 4558 | MTHFR GenotypR™ (C677T) | Offered as a panel - C677T/A1298C | 4562 MTHFR C677T/A1298C GenotypR™ |

Referral Testing Changes

Discontinue Sendout S48673 and use #5206 Ashkenazi-Jewish GenotypR™ - Carrier Panel (effective 10/18/05) (includes common mutations for Bloom Syndrome, Canavan Disease, Familial Dysautonomia, Fanconi Anemia GrpC, Gaucher Disease, Mucopolidosis Type IV, Niemann-Pick Disease, Tay-Sachs Disease)

Discontinue Sendout S49197 and use #5216 Bloom Syndrome GenotypR™ - Carrier Testing (effective 11/01/05)

Discontinue Sendout S41345 and use #5256 Gaucher Disease GenotypR™ - Carrier Testing (effective 11/01/05)

Discontinue Sendout S49198 and use #5246 Fanconi Anemia GrpC GenotypR™ -Carrier Testing (effective 11/01/05)

Discontinue Sendout S48728 and use #RT600 Allergen-Hackberry IgE (effective 10/10/05)

Discontinue Sendout S46825 and use #3266 Heat Shock Protein 70 (Hsp 70) Autoantibodies (effective 11/15/05)

Discontinue Sendout S50918 and use #4266 N-Telopeptide, Serum (effective 11/15/05)

Discontinue Sendout S49574 and use #7468 *M. tuberculosis* Complex DNA DetectR™ (effective 11/15/05)

Please visit our website at www.specialtylabs.com or call Client Services at 800-421-4449 for more information.