

PANELS

# DISEASE PANELS

**Adrenal Disease Panel**

- ACTH
- ACTH stimulation test
- Aldosterone
- BUN
- Cortisol
- Creatinine
- Dexamethasone suppression test
- Electrolytes
- 24-hr urine cortisol
- 24-hr urine free cortisol
- Renin

**Anemia Panel**

- CBC
- Erythropoietin
- Ferritin
- Folic acid
- Hb electrophoresis
- Iron
- LDH
- Reticulocyte count
- TIBC
- Transferrin
- Vitamin B12
- B.M examination

**Autoimmune Disease Panel**Celiac Disease Panel:

- Anti-Endomysial Ab(EMA)
- Anti-Gliadin Ab
- Anti-tissue transglutaminase ( tTG Ab)
- ASCA

MS Panel:

- Albumin and IgG index
- NMO Ab
- OCB typing with IEF

Myasthenia gravis Panel:

- Anti Acetylcholine receptor Ab
- Anti musk

Thyroid:

- Anti-Thyroglobulin
- Tpo-Ab

Vasculitis:

- ANCA
- Anti-MPO ( p-ANCA)
- Anti- PR3 ( c-ANCA)

**Bone and mineral metabolism**

- Alk.phosphatase
- Calcium
- 25-OH-Vitamin D3
- phosphorus
- PTH

**Coagulation Panel**

- Anti thrombin III
- Fibrinogen
- Lupus anticoagulant Ab
- protein C,S
- PT-PTT
- Thrombosis panel (Hereditary)

**Cancer Screening /DX Panel**

- AFP
- BHCG
- CA 125
- CA 15-3
- CA19-9
- Calcitonin
- CEA
- CRP
- ESR
- IHC
- PSA(Total,Free)
- Thyroglobulin in FNA material

**Diabetes Panel**

- C-peptide
- FBS
- 2 hrs Glucose
- GCT - GTT
- Hb A1C
- Insulin
- microalbumin
- urine analysis

## Hormonal Evaluation and Fertility Panel

### Female Tests:

- AMH
- Androstenedione
- Chlamydia Ab
- Chlamydia trachomatis PCR on liquid based papsmear
- DHEA-SO<sub>4</sub>/DHT
- FSH
- Homocysteine
- LH,Estradiol
- 17-OH-progesterone
- Progesterone
- Prolactin
- TSH,T<sub>3</sub>,T<sub>4</sub>,TPO,Anti Tg

### Male Tests:

- Androstenedione
- Anti sperm Antibody
- Chlamydia Ab
- DHEA-SO<sub>4</sub>/DHT
- FSH
- LH
- Prolactin
- Semen analysis
- Semen culture
- Testosterone(Free & Total)
- TSH/T<sub>3</sub>,T<sub>4</sub>

**Drug Monitoring Panel**

- Carbamazepine
- Cellcept
- Cyclosporine
- E ethosuximide
- Everolimus
- Lamotrigine
- Levetiracetam
- Lithium
- Methotrexate
- Phenobarbital
- Phenytoin
- Primidone
- Salicylate
- Sirolimus
- Tacrolimus(FK)
- Topiramate
- Valporic Acid

**Hypertension Panel**

- Aldosterone
- BUN
- Calcium
- Cortisol
- Creatinine
- Fasting blood glucose
- Lipid profile
- Potassium
- Renin
- Thyroid screening panel
- Urine analysis
- Urine metanephrenes & normetanephrenes

**Liver Panel**

- Albumin
- ALT,AST,ALP
- AMA
- ANA
- ASMA
- Bilirubin (Total & Direct)
- Ceruloplasmin
- Copper (serum &urine)
- Liver Copper content
- GGT
- Hepatitis A,B,C,D
- LDH
- LKM Ab
- PT
- Total protein

**Lung Disease Panel**

- ADA in serum and body fluid
- AFB smear and culture
- Alpha-1-Antitrypsin
- EML -ALK For response to TKI therapy in NSCLC
- Lung cancer mutation panel ( KRAS,EGFR,ALK,BRAF)
- PPD
- Sputum cytology and culture
- TB PCR

**Myeloma Panel**

- Bence Jones protein
- Free Light chain (Kappa and Lambda) in serum
- Immunoglobulin determination For IgG,IgM,IgA,IgE
- pathology and IHC For bone marrow
- Serum protein electrophoresis and immunoelectrophoresis
- Urine protein electrophoresis
- CISH for kappa & lambda on BM

**Newborn Screening Panel**

- Amino Acid profile (HPLC)
- Ammonia/Lactate
- Ferric chloride test (For PKU)
- Homogentisic Acid (For Alkaptonuria)
- phenylalanine
- Tyrosine
- Neonatal metabolic Screening

**Pancreatic Disease Panel**

- Amylase
- Calcium
- Fasting blood sugar (FBS)
- Lipase
- Triglyceride

**Prenatal Screening Panel**

- Double marker
- Maternal AFP
- Quadruple marker
- Sequential screening

**Rheumatology Panel**

- ANA (screen & IF)
- ANCA( p-ANCA & c-ANCA)
- Anti-ccp Ab
- dsDNA
- ENA profile
- Rheumatoid factor

**Renal Disease Panel**

- Albumin
- A1 microglobulin
- Bence Jones protein
- B2 microglobulin
- BUN
- Calculi analysis
- Creatinine
- Creatinine clearance
- Cystatin c
- Cystine on 24hrs urine
- Electrolytes (Na,k,ph,mg,cl)
- GFR
- oxalate on 24hrs urine
- Total protein
- Uric acid
- Urine citrate
- 24-hrs urine For protein and Creatinine

**Thyroid Panel**

- Anti-thyroglobulin Ab (ATA)
- Anti-TPO
- Free T3 &T4
- Free thyroxine index(FTI)
- T3,T4
- TSH
- T3 uptake
- Thyroglobulin

**Vitamins and Nutrition Panel**

- Calcium
- Cholesterol( Total,HDL,LDL)
- Electrolytes(Na,K,CL,Mg)
- Folic acid
- Glucose
- Iron,uric acid
- TG
- Vitamin A,C,D3,E,B12
- Zinc

**Viral Hepatitis Panel**

- HAV Ab (IgM)
- HBc Ab (IgM)
- HBc Ab (Total)
- HBe Ab
- HBe Ag
- HBs Ab
- HBs Ag
- HBV PCR
- HCV Ab
- HCV PCR
- HDV Ab

### Molecular Diagnosis

- BCR-ABL p190
- BCR-ABL p210
- Beta fibrinogen
- BK and JC virus Qualitative
- BK Virus Quantitative
- BRAF Codons V600 and G469A for HCL, colorectal cancer , lung cancer, Melanoma
- BRCA1 and BRCA2 sequencing
- BRCA known mutation testing
- Brucella
- Calreticulin for MPN
- c-KIT for GIST
- CMV Qualitative/Quantitative
- EBV Quantitative
- EGFR for lung cancer
- Factor V Leiden R506Q and Prothrombin G20210A
- Factor VII
- Factor VIII
- FLT3 D835 for AML prognosis
- FLT3 ITD for AML prognosis

- HBV Qualitative
- HBV Quantitative
- HCV Genotyping ( all genotypes)
- HCV Qualitative
- HCV Quantitative
- Hereditary thrombosis panel (Factor V Leiden R506Q, Prothrombin G20210A,MTHFR C677T and A1298C,PAI-1)
- HFE common mutations (C282Y, H63D,S65C) and some rare variants in exons 2 and 4 for hereditary hemochromatosis
- HLA B27
- HPV Detection and Genotyping (32 Genotypes)
- HSV Qualitative
- IDH1 and IDH2 for astrocytoma and glioma
- JAK2 exons11-16 for MPN
- JAK2 V617F
- KRAS codons 12,13 and 61 for lung cancer
- Leishmania
- Lung cancer mutation panel (EGFR,KRAS,ALK,BRAF)

- MPL exon 10 for MPN  
MPN molecular panel (JAK2 V617,MPL exon10, JAK2 exon12,Calreticulin)
- MTHFR C677T and A1298C
- Mycobacterium Tuberculosis complex
- MYD88 for lymphoplasmacytic lymphoma
- Oncotype Dx for breast cancer
- PAI-1
- PDGFRA for GIST
- PML-RAR $\alpha$
- RAS for colorectal cancer
- t(8;21) AML1-ETO Qualitative
- TKI Resistance ( T315I)
- Whole exome sequencing

**Interphase FISH CLL Panel:  
(Prognostic markers in CLL)**

- Del 13q (DLEU)
- Del 17p (P53)
- Del 11q (ATM)
- Trisomy 12

### **Flow cytometry**

Immunophenotyping for  
peripheral Blood cells &  
Bone marrow and Body Fluids

### **Leukemia/Lymphoma diagnosis and subtyping**

- CD5
- CD10
- CD 11b
- CD 11c
- CD13
- CD16
- CD19
- CD20
- CD23
- CD25
- CD33
- CD34
- CD38
- CD45
- CD64
- CD117
- CD138
- CD15
- CD7
- CD2

- cCD3
- MPO
- CD79a
- CD3
- CD4
- CD8
- **CD22**
- **CD18**
- **FMC7**
- **HLA-DR**
- **Kappa**
- **Lambda**
- TdT
- ZAP70
- **CD27**

**Immunodeficiency disease**

- CD3
- CD4
- CD8
- CD16
- CD19
- CD45
- CD56
- CD14
- CD27
- CD20
- CD45RA
- CD45RO
- DHR- NBT
- HLA-DR

**Lymphocyte Subtype (Th/Tc)**

- CD3
  - CD4
  - CD8
- PNH (Paroxysmal Nocturna)**
- CD55
  - CD59
  - CD14
  - CD64

**Isotype Control**

- IgG1 FITC
- IgG1 PE
- IgG2a FITC
- IgG1 PerCP
- IgM FITC