

## Develop New or Improved Methods for Diagnosing Disease and Disability

### Science Advances

- Blood Test Can Predict Pulmonary Complications from Sickle Cell Disease (442)
- Newly Identified Genetic Defects Cause Sudden Cardiac Death in Young People (443)
- Genetic Mutation Increases Heart Attack Risk for Women on Hormone Replacement Therapy (444)
- MRI Helps Identify Patients Likely to Benefit from Revascularization (445)
- Preschool Communication Problems and Later Academic Performance (446)
- Development of Stereocilia Orientation in Hair Cells (447)
- Loss of Neurons in a Particular Brain Region is Associated with Onset of Cognitive Decline in Older Individuals (448)
- Some People with Mild Cognitive Impairment Progress to Alzheimer's Disease and Some Don't: How to Tell (449)
- Imaging Clearance of Plaques by Immunotherapy in Living Mice (450)
- Imaging Small Regions of Brain in Humans and Genetically Modified Mice (451)
- Bacterial Slime Clogs Cystic Fibrosis Lungs (452)
- Identification of a Genetic Risk Factor for Lumbar Disc Disease (453)
- Genetic and Molecular Basis of Pseudoxanthoma Elasticum (454)
- Epidermolysis Bullosa: Molecular Mechanisms and Treatment Possibilities (455)
- Low Serum Thyroid Stimulating Hormone Levels Increase Risk of Fracture in Elderly Women (456)
- Racial Disparities in the Diagnosis and Treatment of Schizophrenia and Depression (457)
- Bipolar Disorder in Children: Exploring a New Diagnostic Entity (458)
- Improved Diagnosis of Oligodendroglioma (459)
- Predicting Intractability of Epilepsy in Children (460)
- Link Between a Common Sleep Disorder and a Risk Factor for Alzheimer's Disease (461)
- Early Prediction of Stroke Recovery (462)
- Predicting Prognosis in Wilm's Tumor (463)
- A Noninvasive Test to Detect Kidney Transplant Rejection (464)
- Marijuana Use in Early Adolescence Can Lead to Psychiatric Problems as an Adult (465)
- Brain Damage Due to Methamphetamine Abuse Has Functional Consequences (466)
- Understanding E. Coli Pathogenicity (467)
- Diagnosing and Monitoring Sleep Apnea (468)
- A New Device for Cancer Diagnosis (469)
- Type 2 Diabetes Detection in High-Risk Individuals (470)
- Improved Prediction of Tissue Damage in Stroke Patients (471)
- Childhood Origins of Health Disparities in African Americans (472)
- New Method to Measure Testosterone Levels May Help Diagnose Infertility in Men (473)
- Artificial Intelligence in the Diagnosis of Breast Cancer (474)
- HPV Testing Identifies Pap Test Abnormalities Needing Follow-Up (475)
- New, Highly Accurate Technique for Genetic Diagnosis of Cancer Risk (476)
- MR Imaging in Metastatic Lymph Node Detection and Gene Therapy (477)
- Potential Biomarkers to Detect Early Ovarian Cancer Found (478)
- Genetic Testing of Stool Detects Colorectal Cancer (480)
- Use of Saliva in Diagnosis and Management of AIDS (481)
- Early Detection of Head and Neck Squamous Cell Carcinoma (482)

Ultrahigh Resolution Instrument May Improve Diagnosis of Retinal Diseases (483)  
Simpler Method of Genotyping Hepatitis C (HCV) (484)  
Penicillin Resistant Meningitis in Salvador, Brazil (485)  
Accuracy and Bias in Ratings of Nursing Home Residents' Pain (486)  
Longitudinal Follow-up of Neonatal Intensive Care Unit Survivors (487)  
Predicting Left Ventricular Hypertrophy in Young Hypertensive African-American Men (488)

### **Science Capsules**

A Large-Scale Analysis of Gene Expression in Ovarian Cancer Suggests Novel Pathways and Reveals Novel Markers for this Disease (489)  
Racial Differences in Cognitive Performance in Elders Disappear when Quality of Education is Assessed (489)  
MAD2 Gene Linked to Genomic Instability in Aggressive, Drug Resistant Tumors (489)  
Familial Mania Predicts Switch from Childhood Depression to Adolescent Bipolar Disorder (490)  
Schizophrenia May Not Cause Long-term Cognitive Decline (490)  
Gene for Myotonic Dystrophy Type 2 (490)  
Imaging Stroke Recovery (491)  
Some Adolescent Smokers May Be Self-medicating (491)  
Measuring Progression of Alzheimer's Disease (491)  
Screening for Hemochromatosis (492)  
Characterization of the Autism Gene (492)  
Ductal Lavage for Breast Cancer Diagnosis (492)  
A Possible Marker for Invasive Breast Cancer (493)  
Invasion-specific Markers for Pancreatic Cancer (493)  
Device May Enable Detection of Lung Cancer From Chest X-Rays (493)  
Detection of Cancer-Predisposing Mutations in Mitochondrial DNA (494)  
Development of Simple and Reliable HIV Test for Resource Poor Settings (494)  
Prenatal Stress and Outlook Affects Birth Outcomes in High-Risk Pregnancies (495)  
Genetic Analysis of Digestive Physiology Using Fluorescent Lipids (495)  
Bladder Cancer Diagnosed by Simple Urine Test (495)  
A New Way to Monitor Progression of Polycystic Kidney Disease (496)

### **Stories of Discovery**

Single Nucleotide Polymorphisms (SNPs) and Haplotypes: New Tools for Tracing Inherited Diseases (497)  
Mass Spectrometers Weigh the Evidence for Health and Disease (499)