



MINNEAPOLIS  
MEDICAL  
RESEARCH  
FOUNDATION

2009 ANNUAL REPORT





**A**t the Minneapolis Medical Research Foundation (MMRF), we have been finding answers to the health problems of our patients since 1952. We support and oversee the medical research conducted at Hennepin County Medical Center. In an academic environment that emphasizes patient care, research and teaching, MMRF helps offer patients better care now and hope for improved healthcare in the future.

MMRF is the third largest medical research non-profit in Minnesota and ranks in the top seven percent nationally of all institutions receiving research grants from the National Institutes of Health. While public monies support a majority of our research, our

work would not be possible without the support of corporate and individual donors.

The high quality of medical care we enjoy today is built upon years of effort by physicians, PhDs, and other medical professionals investigating the causes of and potential treatments for disease. The tireless effort of countless medical professionals has made many once life-threatening diseases and conditions a faded memory.

There is still much work to be done. Insights provided by medical research today promise to lessen the impact of today's greatest health problems, including diabetes, cancer, and heart disease. As science continues to unveil the molecular workings that underpin disease, we will see profound changes in the approach to treating disease.

MMRF researchers are at the forefront in this revolution in medical knowledge. To capitalize on the advances that have been made in our understanding of disease, a majority of our research projects are translational in nature. Translational medical research seeks to take the medical discoveries that have been made in a laboratory setting and translate them into medical practices that can be used by physicians to improve the lives of their patients.

When you support medical research, you are helping medical researchers build the future of medicine. With the partnership of individual and corporate donors, we are able to make significant headway in advancing medical knowledge and improving patient care and outcomes.



In 2009, researchers at the Minneapolis Medical Research Foundation received grants and awards worth \$25,933,996. Grants were provided by government entities, private industry, foundations, and donations.

## Sponsored Research Projects

### Principal Investigator

Study Title

Funding Source

~ A ~

### Albrecht, Jeffrey

*Cyclin D1/CDK4 Complex in Hepatocyte Proliferation*  
National Institutes of Health

### Anderson, David

*Secondary Prevention of Small Subcortical Strokes (SPS3) Study*  
University of Texas/  
National Institutes of Health

### Apple, Fred

*Testing of Analytes C-reactive Protein and Troponin*  
Wellstat Diagnostics, LLC

### Apple, Fred

*Evaluation of Blood Collection Tubes with Hemogard Closures for Select Analytes*  
Becton, Dickinson & Co.

### Apple, Fred

*Clinical Validation and Method Evaluation of the ARCHITECT BNP Assay*  
Abbott Laboratories

### Apple, Fred

*Development of Next Generation of RAMP Troponin I Assay*  
Response Biomedical Corp.

### Apple, Fred

*Validation of the ADVIA Centaur Syphilis Assay*  
Siemens Healthcare Diagnostics Inc.

### Apple, Fred

*External Evaluations of FLEX bhCG Assay, Cardiac Troponin, CK-MB, Myoglobin and hsCRP Assays, and D-Dimer Assay*  
Radiometer Medical ApS

~ B ~

### Baker, Jason

*Pre-emptive Treatment for CVD in HIV-infected Patients: A Pilot Study*  
American Heart Association - Midwest Affiliate

### Baker, Jason

*Multidisciplinary Clinical Research Career Development Award*  
University of Minnesota/  
National Institutes of Health

### Baker, Jason

*Artery Elasticity After Switch from Epzicom to Truvada*  
Gilead Sciences, Inc.

### Baker, Jason

*International Network for Strategic Initiatives in Global HIV Trials*  
National Institutes of Health

### Baker, Jason

*H1N1v Hospitalization Study*  
National Institutes of Health

### Baker, Jason

*Renal Denervation in Patients with ESRD and Refractory Hypertension*  
Ardian, Inc.

### Bart, Bradley

*Lexiscan (Regadenoson) Injection*  
Astellas Pharma US, Inc.

### Bart, Bradley

*Apixaban for Prevention of Acute Ischemic Safety Events*  
Bristol-Myers Squibb

### Bart, Bradley

*A Multi-center Study to Assess the Safety and Efficacy of Conivaptan in Symptomatic Acute Decompensated Heart Failure*  
Astellas Pharma US, Inc.

### Bart, Gavin

*Methadone Population Pharmacokinetics: Treatment Outcome in Hmong and Non-Hmong*  
National Institutes of Health

### Bechtold, Joan

*Failure Mechanisms of Revision Joint Replacement*  
National Institutes of Health

### Brottman, Gail

*Improving Quality Through Health IT: Testing the Feasibility & Assessing the Impact of Using Existing Health IT Infrastructure for Better Care Delivery*  
Denver Health/  
Health Research Services Administration

## 2009 Grants Awarded

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### ~ C ~

#### **Chen, Shu-Cheng**

*Kidney Early Evaluation Program -  
Data Coordinating Center  
National Kidney Foundation*

#### **Collins, Allan**

*Provider Specific Assessment  
of Standardized Mortality and  
Hospitalization Ratios  
Satellite Healthcare, Inc.*

#### **Collins, Allan**

*Metabolic Syndrome and New  
Onset Diabetes Following Renal  
Transplant  
Bristol-Myers Squibb*

#### **Collins, Allan**

*Provider Specific Assessment  
of Standardized Mortality and  
Hospitalization Ratios  
DaVita, Inc.*

#### **Collins, Allan**

*Population Based Observational  
Study of Post Transplant  
Comorbidity in Renal Transplant  
Recipients in US  
Bristol-Myers Squibb*

#### **Collins, Allan**

*Patient Outcomes in Renal  
Transplant (PORT): Development  
of CV Predictive Risk Equations in  
Renal Transplant  
Bristol-Myers Squibb*

#### **Collins, Allan**

*Health Economics and Outcomes  
Strategy  
Bristol-Myers Squibb*

#### **Cramer-Bornemann, Michel**

*SIT Test for Early Detection of RLS  
Augmentation  
Johns Hopkins/  
GlaxoSmithKline plc*

#### **Cutts, Diana**

*Children's Health Watch  
Boston Medical College/  
Kellogg Foundation*

#### **Cutts, Diana**

*Doorways to Health: Connection  
Between Housing and the Health  
and Development of Young  
Children  
Boston Medical College/  
MacArthur Foundation*

#### **Cutts, Diana**

*Minnesota Food Support Nutrition  
Education Program  
University of Minnesota/  
United States Department of  
Agriculture*

### ~ D ~

#### **DiAngelis, Anthony**

*Diabetes and Periodontics Trial  
National Institutes of Health*

#### **DiAngelis, Anthony**

*Bright Smiles Initiative  
United Way*

### ~ G ~

#### **Goldsmith, Steven**

*Assessing the Safety and Efficacy  
of Early Administration of  
Intravenous CD-NP versus placebo  
in the Treatment of Patients with  
ADHF  
Nile Therapeutics, Inc.*

#### **Goldsmith, Steven**

*The Minnesota Heart Failure  
Consortium: A Regional Clinical  
Center  
National Institutes of Health*

#### **Goldsmith, Steven**

*Study to Assess the Effect of  
Intravenous Medication on Body  
Weight in Subjects with Acute  
Decompensated Heart Failure and  
Renal Insufficiency  
Biogen Idec, Inc.*

#### **Goldsmith, Steven**

*Advanced Glycation End-products  
and Diastolic Dysfunction  
Duke University/  
National Institutes of Health*

#### **Gray, Richard**

*Placebo-Controlled Study to  
Evaluate Adjunct to Standard  
Therapy for Adults with an Acute  
Exacerbation of Asthma  
MediciNova, Inc.*

#### **Grimm, Richard**

*Women's Health Initiative  
Observational Study  
National Institutes of Health*

#### **Grimm, Richard**

*Action to Control Cardiovascular  
Risk in Diabetes  
National Institutes of Health*

#### **Grimm, Richard**

*Action to Control Cardiovascular  
Risk in Diabetes Renal Ancillary  
Study  
Abbott Laboratories/  
University of Virginia*

#### **Grimm, Richard**

*Trial to Assess Chelation Therapy  
Mount Sinai Medical Center of  
Florida, Inc./  
National Institutes of Health*

#### **Grimm, Richard**

*Intensive Glycemic Control and  
Skeletal Health  
University of California, San  
Francisco/  
National Institutes of Health*

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**Grimm, Richard**

*Alelitazar to Reduce Cardiovascular Morbidity and Mortality*  
Julius Clinical Research Center/  
Roche

**Grimm, Richard**

*ASpirin in Reducing Events in the Elderly*  
National Institutes of Health

**Gross, Eric**

*MRSA Cellulitis Etiology and Diagnosis Study*  
Olive View - UCLA Education and Research Institute

**Gross, Eric**

*Oral Linezolid for Skin Structure Infections*  
Omnicare, Inc./Novexel

**Gross, Eric**

*EMERGENCY ID NET*  
Olive View - UCLA Education and Research Institute

**~ H ~****Hansen, Glen**

*ImmunoCard Toxin A & B and Premier Toxin A & B*  
Meridian Bioscience, Inc.

**Heegaard, William**

*High-Dose Albumin Therapy for Neuroprotection in Acute Ischemic Stroke*  
University of Minnesota/  
National Institutes of Health

**Henry, Keith**

*Strategic Timing of AntiRetroviral Treatment*  
National Institutes of Health

**Henry, Keith**

*Safety and Efficacy Study of Switching From Epzicom to Truvada*  
Gilead Sciences, Inc.

**Herzog, Charles**

*USRDS Cardiovascular Special Studies Center*  
National Institutes of Health

**~ I ~****Israni, Ajay**

*Genomics of Kidney Transplantation Lab Component*  
University of Minnesota/  
National Institutes of Health

**Israni, Ajay**

*Ethnicity, Follow Up Care, and Renal Function Monitoring After Kidney Transplantation*  
University of Minnesota/  
Robert Wood Johnson Foundation

**~ K ~****Kasiske, Bertram**

*A Randomized Controlled Trial For Homocysteine*  
Rhode Island Hospital/  
National Institutes of Health

**Kasiske, Bertram**

*Genomics of Kidney Transplantation - Clinical Component*  
University of Minnesota/  
National Institutes of Health

**Kasiske, Bertram**

*Long Term Deterioration of Kidney Allograft Function*  
University of Minnesota/  
National Institutes of Health

**Kinney, Timothy**

*Third Eye Retroscope Auxiliary Imaging System*  
Avantis Medical

**~ L ~****Ledray, Linda**

*Prevention of Postrape Drug Abuse: Replication Study*  
Medical University of South Carolina

**Ledray, Linda**

*Sexual Assault Resources - Conference 2011*  
Department of Justice

**LeSage, Mark**

*Modeling Behavioral Treatments for Stimulant Abuse*  
National Institutes of Health

**LeSage, Mark**

*Determinants of Nicotine Reinforcement Thresholds and Demand Elasticity in Rats*  
National Institutes of Health

**LeSage, Mark**

*Active Immunization for Treating Methamphetamine Abuse*  
University of Arkansas/  
National Institutes of Health

**Linzer, Mark**

*Creating Healthy Workplaces: Improving Outcomes for Providers and Patients*  
Agency for Healthcare Research & Quality

**~ M ~****Mahoney, Brian**

*Rapid Anticonvulsant Medications Prior to Arrival Trial*  
University of Minnesota/  
National Institutes of Health

**Mahoney, Brian**

*Impedance Threshold Value for Improving Standard CPR*  
Advanced Circulatory Systems, Inc.

## 2009 Grants Awarded

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**McKnite, Scott**

*Application of an Impedance Threshold Device for Rapid Triage and Treatment of Hemorrhage-Induced Hypotension*  
Advanced Circulatory Systems, Inc./  
United States Department of Defense

**Miner, James**

*Ultrasound Imaging of Endotracheal Tubes*  
PlasiaTEK, LLC

~ N ~

**Nance, Martha**

*Pilot Huntington's At Risk Observational Study*  
University of Rochester

**Nance, Martha**

*Cooperative Huntington's Observational Research Trial*  
University of Rochester

~ N ~

**Olson, Kalen**

*Cardiac Troponin T Expression in Diseased and Damaged Skeletal Muscle*  
Van Slyke Foundation

**Olson, Kalen**

*AACC Marshall Education Award*  
American Association for Clinical Chemistry

~ P ~

**Pentel, Paul**

*Immunization to Block the Effects of Nicotine*  
National Institutes of Health

**Pentel, Paul**

*Multivalent Vaccine for Opiate Addiction*  
National Institutes of Health

**Pentel, Paul**

*Aktiv-Dry Phase II Development of Micronized Needle-Free Vaccine for Smoking Cessation and Prevention*  
National Institutes of Health

**Pentel, Paul**

*Immunization to Block the Effects of Nicotine - ARRA Competitive Supplement*  
National Institutes of Health

**Pentel, Paul**

*Laser Adjuvants for Nicotine Vaccines*  
Massachusetts General Hospital/  
National Institutes of Health

~ S ~

**Sabey, Karin**

*HIV Case Management Services*  
Hennepin County/  
United States Department of Health and Human Services

**Sabey, Karin**

*HIV Chemical Health Services*  
Hennepin County/  
Department of Health and Human Services

**Sabey, Karin**

*Community HIV Health Education and Risk Reduction*  
Minnesota Department of Health

**Schmidt, Andrew**

*Fixation Using Alternative Implants for the Treatment of Hip Fractures*  
University of Minnesota/  
National Institutes of Health

**Schut, Ron**

*HIV Counseling, Testing, and Referral Program*  
Minnesota Department of Health

**Schut, Ron**

*Indigent Metropolitan AIDS Care Collaborative*  
Health Research Services Administration

**Segal, Barbara**

*Work Disability, Lost Productivity and Associated Risk Factors in Patients Diagnosed with Lupus*  
Harris/Genentech, Inc.

**Segal, Barbara**

*A Sequential Adaptive Study to Evaluate the Efficacy and Safety of Abatacept Versus Placebo*  
Bristol-Myers Squibb

**Segal, Barbara**

*Fatigue and Oxidative Stress in Systemic Lupus Erythematosus*  
Lupus Foundation of America

**Segal, Barbara**

*PHAROS Pulmonary Hypertension Study*  
Georgetown University/  
Sibley Hospital

**Seieroe, Mary**

*HIV/AIDS Dental Reimbursement Program*  
Health Research Services Administration

~ T ~

**Tiryaki, Ezgi**

*Multicenter Validation of Biomarkers for Motor Neuron Disease*  
Massachusetts General Hospital/  
National Institutes of Health

**Tsukayama, Dean**

*Diagnosis of Latent Tuberculosis in HIV-Infected Patients*  
Oxford Immunotec, Inc.

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~ V ~

**Van Camp, Joseph**

*Thoracic Endoprosthesis  
for Treatment of Traumatic  
Transection of the Descending  
Thoracic Aorta*  
W. L. Gore & Associates, Inc.

~ Y ~

**Yoon, Patrick**

*Ankle Fracture Plating: A  
Multicenter Randomized Trial  
Comparing Lateral and Antiglides  
Plating in Displaced Lateral  
Malleous Fractures*  
Ohio State University Research  
Foundation/  
Orthopedic Trauma Care

~ Z ~

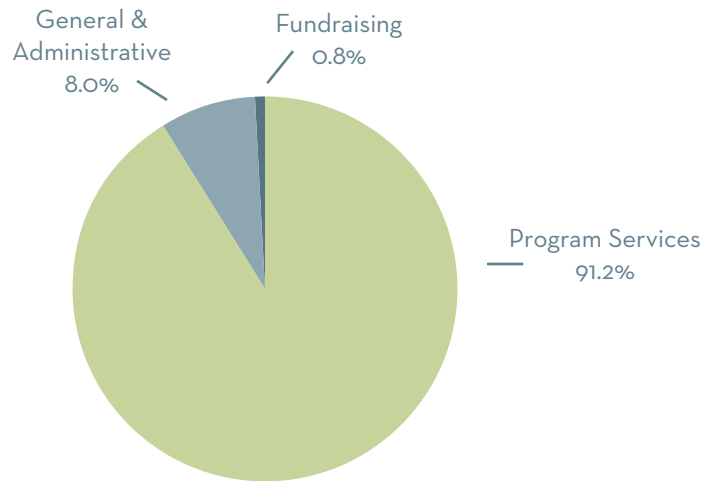
**Zera, Richard**

*National Surgical Adjuvant Breast  
and Bowel Project (NSABP)*  
National Institutes of Health



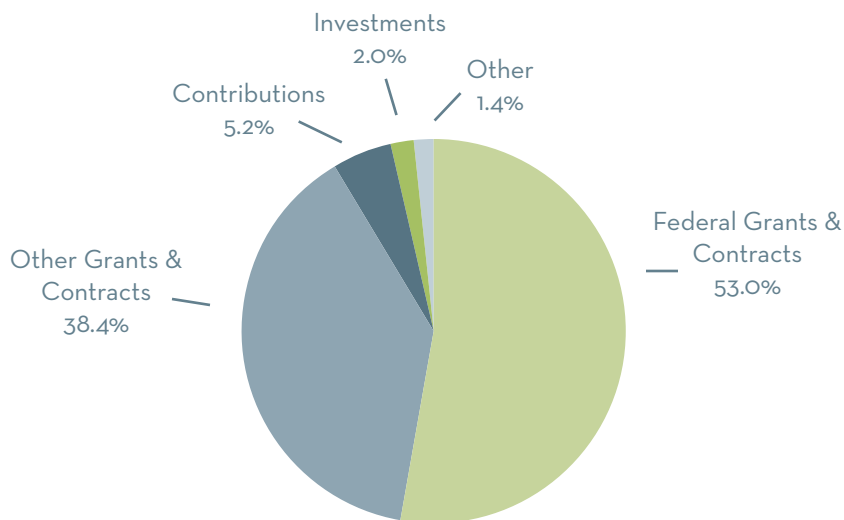
### Distribution of Funds in 2009

In 2009, 91.2% of each dollar contributed to MMRF went directly to supporting research efforts. 8.0% of funds were used to support administrative costs and facilities maintenance. The remaining 0.8% of funds were used to support fundraising activities. This makes MMRF one of the most competitive and efficient medical research foundations.



### MMRF Funding Sources

Contributions to MMRF come from a variety of sources. While federal funding provides the largest portion of our funding, contributions from individuals and private organizations are crucial to the success of MMRF.



# Statement of Financial Position

December 31, 2009 with comparative information as of December 31, 2008

<b>ASSETS</b>	<b>2009</b>	<b>2008</b>
Cash and cash equivalents	\$ 1,661,476	\$ 2,797,734
Investments	18,553,859	15,251,654
Receivables		
Contract and grant	5,679,170	5,775,694
Pledges, net	79,437	120,618
Prepaid expenses	216,157	302,565
Beneficial interest in perpetual trusts	905,421	776,030
Property and equipment, net	<u>2,632,932</u>	<u>3,002,973</u>
<b>Total assets</b>	<b><u>\$ 29,728,455</u></b>	<b><u>\$ 28,027,268</u></b>
 <b>LIABILITIES AND NET ASSETS</b>		
<b>LIABILITIES</b>		
Accounts payable	\$ 619,879	\$ 1,147,036
Accrued expenses	976,202	952,183
Deferred revenue	<u>316,854</u>	<u>425,876</u>
<b>Total liabilities</b>	<b><u>1,912,935</u></b>	<b><u>2,525,095</u></b>
 <b>NET ASSETS</b>		
Unrestricted		
Investment in property and equipment	2,632,935	3,002,973
Undesignated	687,332	417,997
Designated - other	2,173,381	2,352,690
Designated for investigator directed research and education	<u>4,497,211</u>	<u>2,342,022</u>
Total unrestricted	<u>9,990,859</u>	<u>8,115,682</u>
Temporarily restricted	5,537,411	7,171,448
Permanently restricted	12,287,250	10,215,043
<b>Total net assets</b>	<b><u>27,815,520</u></b>	<b><u>25,502,173</u></b>
<b>Total liabilities and net assets</b>	<b><u>\$ 29,728,455</u></b>	<b><u>\$ 28,027,268</u></b>

## 2009 Financial Highlights

December 31, 2009 with comparative information as of December 31, 2008

<b>CONTRIBUTIONS, GAINS, AND OTHER SUPPORT</b>	<b>Unrestricted</b>	<b>Temporarily Restricted</b>	<b>Permanently Restricted</b>	<b>2009 Total</b>	<b>2008 Total</b>
U.S. Government contracts and grants	\$ -	\$ 13,745,436	\$ -	\$ 13,745,436	\$ 13,367,973
Other contracts and grants	-	9,945,558	-	9,945,558	7,864,311
Contributions	226,696	1,122,367	2,477	1,351,540	1,597,272
Investment income	347,826	-	157,759	505,585	553,901
Other	28,079	228,407	-	256,486	192,545
Change in value of perpetual trusts	-	-	129,391	129,391	(258,770)
Net assets released from restrictions	27,082,275	(26,675,805)	(406,470)	-	-
Total contributions, gains, and other support	27,684,876	(1,634,037)	(116,843)	25,933,996	23,317,232
<b>OPERATING EXPENSES</b>					
Research and education	24,560,399	-	-	24,560,399	22,811,757
General and administrative	2,163,127	-	-	2,163,127	2,304,103
Fundraising	211,282	-	-	211,282	309,770
Total operating expenses	26,934,808	-	-	26,934,808	25,425,630
<b>GAIN (LOSS) FROM OPERATIONS</b>	750,068	(1,634,037)	(116,843)	(1,000,812)	(2,108,398)
<b>CHANGE IN UNREALIZED GAINS ON INVESTMENTS</b>	1,125,109	-	2,189,050	3,314,159	(5,776,120)
<b>CHANGE IN NET ASSETS</b>	1,875,177	(1,634,037)	2,072,207	2,313,347	(7,884,518)
<b>NET ASSETS, BEGINNING OF YEAR</b>	8,115,682	7,171,448	10,215,043	25,502,173	33,386,691
<b>NET ASSETS, END OF YEAR</b>	9,990,859	5,537,411	12,287,250	27,815,520	25,502,173



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# MINNEAPOLIS MEDICAL RESEARCH FOUNDATION

For more information on our research:

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