The greatest legacy a man can have is to leave the world a better place because of his efforts. The world is a better place because of Mr. Thrasher’s generosity and his desire to help children. It was this compassion that led him to establish a research fund dedicated to the diagnosis, prevention and treatment of children’s diseases.

E. W. “Al” Thrasher’s legacy is manifested through the many grants Thrasher Research Fund has provided to improve the lives of children. Over the past several decades, more than $100 million has been given to research in these efforts. There are children in many countries throughout the world who may never know of his name, but, because of him, have literally been given life. The faces of these children and families reflect a hope for a better tomorrow.

Though Mr. Thrasher is no longer with us, his legacy continues. The Fund’s focus on the health and well-being of children remains as our grantees conduct medical research, the results of which are being translated into interventions to prevent and treat children’s diseases. These results are published in premier research and medical journals across the globe.

As Mr. Thrasher’s legacy continues, the Fund will continue in the vision set forth to improve the health of children around the world.
Letter from Mary Bee Thrasher

My late husband, E.W. "Al" Thrasher, established the Thrasher Research Fund to foster the spirit of innovation in talented doctors and scientists seeking to improve the health of children. Although he too was an inventor, he knew that nothing could be more gratifying than saving the life of a child. Thankfully, he lived to see his philanthropic benefit the lives of thousands of children and many more have improved health since his passing.

Al would be pleased with the continued growth of the Fund and the many lives it has touched. As the Fund works with researchers around the globe to find answers to children’s medical problems, Al’s legacy and vision will continue. My family and I wish to express our sincere gratitude to the many professionals who assist the Fund in its mission.

Mary Bee Thrasher
The purpose of the E.W. “Al” Thrasher Awards is to improve children’s health through medical research. Since initiating this award over 40 years ago, our grantees have been leaders in their fields through significant advancements in clinical practice and guidelines. During 2015-2016, 23 new Thrasher awards were granted, totaling over 7 million dollars. The Thrasher Research Fund does not focus on specific diseases, instead, grants are open to applications that address a variety of significant pediatric problems. Our current and former grantees of the E.W. “Al” Thrasher Award offer the potential for practical solutions to address significant health problems that affect children in large numbers. Their solutions are innovative and have the potential for broad applicability with low barriers to implementation.
E.W. “Al” Thrasher Awards

2015

David Anderson, PhD
Burnet Institute
Improved diagnosis of active syphilis at point-of-care for the elimination of congenital syphilis
$308,924

Gary Darmstadt, MD, MS
Stanford University
Emollient therapy for severe acute malnutrition: Randomized controlled clinical trial in Bangladesh
$275,000

Michael DeBaun, MD, MPH
Vanderbilt University Medical Center
Hydroxyurea for stroke prevention in children with Sickle Cell Disease in Sub-Saharan Africa
$375,000

Grace John-Stewart, MD, PhD
University of Washington
Preventing Mycobacterium tuberculosis infection in HIV-exposed infants
$523,569

Reynaldo Martorell, PhD
Emory University
Assessing the impact of home fortification of complementary foods on child cognitive development
$119,316

Katrin Mattern-Baxter, PT, DPT, PCS
California State University, Sacramento
Intensive home-based treadmill training and walking attainment in young children with cerebral palsy
$150,001

Mary Ellen McCann, MD, MPH
Boston Children’s Hospital
Neurocognitive outcomes 5 years after infant anesthesia: The GAS Trial
$361,151

Loren Miller, MD, MPH
LA BioMed
Decolonization of the oropharynx, an important and neglected reservoir of S. aureus colonization
$304,911

Francisca Mutapi, PhD
University of Edinburgh
Childhood schistosomiasis: a novel strategy extending the benefits/reach of antihelminthic treatment
$352,561

2016

Stephan Ehrhardt, MD, MPH, DTMPH
Johns Hopkins Bloomberg School of Public Health
Tenofovir in early pregnancy to prevent mother-to-child transmission of hepatitis B virus
$391,189

Jonathan Finlay, MB, ChB, FRCP
The Research Institute at Nationwide Children’s Hospital
Prospective molecular profiling of medulloblastoma in children on the Head Start 4 consortium trial
$324,293

Anup Katheria, MD
Sharp Mary Birch Hospital for Women & Newborns
Long-term effects of umbilical cord milking vs delayed cord clamping in preterm infants
$174,186
Jennifer Keiser, PhD  
Swiss Tropical & Public Health Institute  
Efficacy and safety of moxidectin plus albendazole, moxidectin plus tribendimidine, albendazole plus oxantel pamoate and moxidectin alone against Trichuris trichiura and concomitant soil-transmitted helminth infections: a randomized controlled trial  
$151,037

Cynthia McEvoy, MD  
Oregon Health & Science University  
Steroids and Surfactant in Extremely Low Gestational Age Infants (SASSIE), Pilot Dose Escalation Trial  
$295,919

Caleb Nelson, MD, MPH  
Boston Children’s Hospital  
Reliability and clinical validity of the consensus classification system for urinary tract dilation  
$164,378

Mike Seed, MBBS  
The Hospital for Sick Children  
Maternal hyperoxygenation in congenital heart disease  
$248,613

Eileen Birch, PhD  
Retina Foundation of the Southwest  
Improving visuomotor and visuocognitive outcomes in deprivation amblyopia with binocular treatment  
$287,014

Robert Husson, MD  
Boston Children’s Hospital  
Urine protein biomarkers for tuberculosis diagnosis in children  
$361,931

Jason Lang, MD, MPH  
Duke University  
Genotype-tailored treatment of symptomatic acid-reflux in children with uncontrolled asthma  
$374,897

Andreas Schibler, MD  
The University of Queensland  
High flow nasal cannula treatment for children with acute hypoxic respiratory failure  
$321,942
Many bright young investigators around the world find it challenging to secure funding for their innovative ideas, yet this next generation of researchers is vital to finding solutions to children’s health problems. To approach this issue, Thrasher Research Fund has awarded over 250 Early Career Awards since 2006. During 2015 and 2016, 73 new grants were given to individuals investigating some of the most important problems facing children.

Over the past two years, Early Career Award Program recipients have made substantial contributions to children’s health, in addition to jump-starting their careers as independent researchers committed to reducing child morbidity and mortality.

They have received academic appointments, leveraged grants, made presentations at prestigious conferences such as Experimental Biology and Pediatric Academic Societies, and have published in journals such as The Lancet, The New England Journal of Medicine, and the Journal of the American Medical Association. We look forward to their future success in confronting health problems and improving the lives of children.

“Try to learn everything that you can. What you learn now might be just what you need to know sometime in the future.”

—Al Thrasher
Early Career Awards

2015

Shehu Abdullahi, MD, FWACP
Vanderbilt University Medical Center
Mentor: Michael DeBaun, MD, MPH
Transcranial doppler flow velocity in iron deficient Nigerian children with Sickle Cell Disease

Ashley Bjorklund, MD
University of Minnesota
Mentors: Marie Steiner, MD, MS; Gwenyth Fischer MD; Tina Slusher MD
Advancement of modified bubble CPAP for use in children in low resource settings: A study of safety

Johanna Calderon, PhD, MS
Boston Children's Hospital
Mentors: David Bellinger, PhD; Jane Newburger, MD, MPH
Improving neurodevelopment in children with congenital heart disease: An intervention study

Manu Chaudhary, MD
Texas Children’s Hospital
Mentors: Morven Edwards, MD; Paula Revell, PhD
Prevalence of maternal group B Streptococcal colonization in India

Sarah Coors, BSN, DO, FAAP
Texas Children’s Hospital
Mentor: Jeffrey Kaiser, MD, MA
Dextrose gel for newborn hypoglycemia

Jennifer Dan, MD, PhD
La Jolla Institute for Allergy & Immunology
Mentor: Shane Crotty, PhD
An immunology of group A Streptococcus tonsillitis

Michelle Eckerle, MD, MPH
Cincinnati Children's Hospital Medical Center
Mentors: Mark Steinhoff, MD; Kathleen Stringer, PharmD; Lilliam Ambroggio, PhD, MPH
Metabolite profiles in viral respiratory illness among Malawian children

Shannon Ermak, MD
Saint Louis University
Mentor: Jeffrey Teckman, MD
Shear wave sonoelastography for the noninvasive evaluation of hepatic fibrosis in the pediatric population

Justin Goddow, MD
Vanderbilt University Medical Center
Mentors: Debra Dodd, MD; Jonathan Soslow, MD, MSCh
2D speckle tracking echocardiography for non-invasive surveillance of rejection and coronary disease in pediatric heart transplant recipients

Amy Goss, PhD, RD
University of Alabama at Birmingham
Mentors: Barbara Gower, PhD; Ambika Ashrat, MD; Taraneh Soleyman, MD
A carbohydrate-restricted diet to reverse fatty liver in adolescents with obesity

Emmi Helle, MD, PhD, MSc
Stanford University
Mentors: Euan Ashley, MRCP, DPhil; James Priest, MD
Identifying candidate genes and molecular mechanisms behind bicuspid aortic valve and LVOTO defects

John Hutton, MD, FAA
Cincinnati Children’s Hospital Medical Center
Mentors: Scott Holland, PhD; Thomas DeWitt, MD, FAAP
Neural effects of home reading environment, screen time, and video format in preschool children processing stories

Serene Joseph, PhD
World Health Organization
Mentors: Antonio Montresor, MD, MSc; Jürg Utzinger, MSc, PhD
A cross-cultural evaluation of the benefits of long-running deworming programs in children

Krista Kelly, PhD
Retina Foundation of the Southwest
Mentor: Eileen Birch, PhD
Binocular iPad treatment for amblyopia

Alex Kuper, PhD
Stanford University
Mentors: David Camarillo, PhD; Gerald Grant, MD
Reducing the risk of pediatric mTBI through airbag helmets

Maureen Leonard, MD, MMSc
Massachusetts General Hospital
Mentors: Alessio Fausto, MD; W Allan Walker, MD
Early environmental determinants predictive of autoimmunity in infants at risk of Celiac Disease

Nilanjana Lodh, PhD, MSc
Marquette University
Mentors: Clive Shift, PhD; Chummy Sikasunge, PhD; James Mwansa, PhD
Molecular diagnosis of multi Schistosome parasites from urine from school children in Zambia

Nathaniel Mouser-Herr, MD
Minneapolis Medical Research Foundation
Mentors: Tina Slusher, MD; Robert Opoka, MCHB, MMED, MPH; Stephen Dunlop, MD
Sensitivity of lung ultrasound in Ugandan children with radiographic pneumonia

Melissa Morgan, MD, MSc
University of California, San Francisco
Mentors: George Rutherford, MD; Elizabeth Allen, PhD, MA, MSc; Joy Lawn, PhD, MPH; MBBS, FRCPCH
The impact of kangaroo mother care on mortality in clinically unstable preterm infants in Uganda

Benson Ogunjimi, MD
University of Antwerp
Mentors: Pierre Van Damme, MD, PhD; Kris Laukens, PhD
Gene expression analyses for the differentiation between viral and bacterial meningitis in children

Keith Ooi, MBBS, Dip Paeds, PhD, FRACP
University of New South Wales
Mentor: Adam Jaffe, MD
Probiotics in infants with cystic fibrosis: Effects of early intervention

Yangming Ou, PhD
Massachusetts General Hospital
Mentors: P Ellen Grant, MD; Randy Gollub, MD, PhD
Quantitative MRI characterization of neonatal brain injury

Elizabeth Radford, BA, MB BChir, PhD
University of Cambridge
Mentors: Matthias Zibauer, MD, PhD, MRCPCH; Anne Ferguson-Smith, PhD, FMedSci
A personalized model of the gut epigenome and microbiome in pediatric inflammatory bowel disease
Robert Nickell, MD, MSc  
Children's National Medical Center  
Mentors: Jeanne Hendrickson, MD; John Horan, MD, MPH; Naomi Luban, MD

The significance of HLA antibodies in children undergoing transplant to cure Sickle Cell Disease

Brietta Oaks, MPH, PhD  
University of California, Davis  
Mentor: Kathryn Devey, PhD

Impact of prenatal and childhood nutrition on telomere length and cortisol in preschool children

Rawad Obeid, MD  
Children's National Medical Center  
Mentors: Anna Penn, MD, PhD; Dorothy Bulas, MD; Taeun Chang, MD

Defining a new parameter for post-hemorrhagic ventricular dilation in premature infants

Majd Osman, MD, MPH  
OpenBiome  
Mentor: Eric Amin, PhD

Fecal microbiota transplantation for severe acute malnutrition: A pilot study

Jonathan Parr, MD, MPH  
University of North Carolina  
Mentor: Steven Meshnick, MD, PhD

Evolution and spread of pfhrp2-deleted Plasmodium falciparum in the Democratic Republic of the Congo

Erin Peckham-Gregory, PhD, MPH  
Texas Children's Hospital  
Mentors: Carl Allen, MD, PhD; Michael Scheuerer, PhD, MPH; Philip Lupo, PhD, MPH

Risk factors for development of somatic activating MAPK pathway mutations in pediatric cancers

Karen Quezada, MD  
Baylor College of Medicine  
Mentor: Richard Kellermayer, MD, PhD

Utility and cost-effectiveness of a combination screen for pediatric lower gastrointestinal disease

Nandini Raghuraman, MD, MS  
Washington University in St. Louis  
Mentors: Alison Cahill, MD, MSC; George Macones, MD, MSCE; Methodius Tuuli, MD, MPH

Oxygen for category II intrauterine fetal resuscitation: a randomized, noninferiority trial

Bahaa Abu Raya, MD  
University of British Columbia  
Mentors: Tobias Kolmann, MD, PhD; Manish Sadarangani, BM, BCH; MPRCPCH, DPhil; Michelle Giles, MD, PhD

The effect of timing of gestational Tdap administration on the avidity of pertussis antibodies

Elizabeth Rogawski, PhD, MSPH  
University of Virginia  
Mentor: Rebecca Dillingham, MD, MPH

Effectiveness of water treatment technologies to prevent child stunting in Limpopo, South Africa

Christiana Smith, MD  
University of Colorado Denver  
Mentor: Adriana Weinberg, MD

Does early cytomegalovirus infection contribute to immune defects in HIV-exposed, uninfected infants?

Trudy Voortman, PhD  
Erasmus University Medical Center  
Mentor: Oscar Franco, PhD, MD

Dietary protein in early childhood and the development of adiposity

Anjuli Wagn, MPH, PhD  
University of Washington  
Mentors: Grace John-Stewart, MD, PhD; Jennifer Sluyker, PhD

Diagnostic performance and acceptability of Saliva-Based HIV testing (SBT) in children

Amanda Wendt, PhD, MS  
Heidelberg University  
Mentor: Sabine Gabrysch, MD, MSc, PhD

Etiology of Anemia among mother-child pairs in Sylhet, Bangladesh

Carol Wilkinson, MD, PhD  
Boston Children's Hospital  
Mentors: Charles Nelson, PhD; Lisa Prock, MD, MPH; Mark Bear, PhD

Neural predictors of autism symptoms and language in Fragile X Syndrome

Yin-Ting Yeh, PhD  
Pennsylvania State University  
Mentors: Mauricio Terrones, PhD; Wallace Greene, PhD

A point-of-care device for respiratory infection diagnosis: Label-free viruses capture and detection
### Statement of Financial Position - December 31, 2016 and 2015

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and Receivables</td>
<td>$3,251,952</td>
<td>$2,580,067</td>
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<tr>
<td>Investments</td>
<td>$92,809,693</td>
<td>$92,619,772</td>
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<tr>
<td>Total Assets</td>
<td>$96,061,645</td>
<td>$95,199,839</td>
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<tr>
<td><strong>Liabilities and Net Assets</strong></td>
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<td></td>
</tr>
<tr>
<td>Grants Payable</td>
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<td>$8,640,020</td>
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<tr>
<td>Other Payable</td>
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<tr>
<td>Total Liabilities</td>
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<td>$9,297,077</td>
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<tr>
<td>Net Assets</td>
<td>$87,553,047</td>
<td>$85,902,762</td>
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<tr>
<td>Total Liabilities and Net Assets</td>
<td>$96,061,645</td>
<td>$95,199,839</td>
</tr>
</tbody>
</table>

### Statement of Activities and Changes in Net Assets
Ended December 31, 2016 and 2015

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest and Dividends from Investments</td>
<td>$2,233,995</td>
<td>$2,245,444</td>
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<tr>
<td>Miscellaneous Income</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Net Realized and Unrealized Gain/(Loss) on Investments</td>
<td>$3,585,656</td>
<td>-$1,568,159.00</td>
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<tr>
<td>Contributed Services</td>
<td>$1,036,000</td>
<td>$1,010,000</td>
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<tr>
<td>Total</td>
<td>$6,855,651</td>
<td>$1,687,285</td>
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<tr>
<td><strong>Expenses</strong></td>
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<td></td>
</tr>
<tr>
<td>Research Grants</td>
<td>$3,591,485</td>
<td>$4,767,861</td>
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<tr>
<td>Contributed Services</td>
<td>$1,036,000</td>
<td>$1,010,000</td>
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<tr>
<td>Financial and Administrative</td>
<td>$654,072</td>
<td>$593,812</td>
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<tr>
<td>Total</td>
<td>$5,281,567</td>
<td>$6,456,853</td>
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<tr>
<td>Excess/(Deficiency) in Revenues Over Expenses</td>
<td>$1,574,084</td>
<td>-$4,769,688</td>
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<tr>
<td>Net Assets at Beginning of Year</td>
<td>$85,902,762</td>
<td>$90,790,593</td>
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<tr>
<td>Retirement/Medical Expense</td>
<td>$7,171</td>
<td>$7,18,143</td>
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<tr>
<td>Net Assets at End of Year</td>
<td>$87,553,047</td>
<td>$85,902,762</td>
</tr>
</tbody>
</table>

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### Thrasher Research Fund Advisory Committee

Carl L. Bose, MD  
(Chair)  
Professor, Department of Pediatrics  
Division of Neonatal-Perinatal  
University of North Carolina School of Medicine at Chapel Hill

Yvonne W. Wu, MD, MPH  
(Chair)  
Professor of Neurology & Pediatrics  
University of California, San Francisco

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Director, Duke Clinical Research Unit  
Duke Clinical Research Institute

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Director, Program in International and Community Nutrition  
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Director, Vaccine Research Program  
Division of Infectious Diseases  
Vanderbilt University School of Medicine

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Professor of Pediatrics, Microbiology & Immunology  
Director, Ryan White Center for Pediatric Infectious Diseases & Global Health Indiana University School of Medicine

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Professor, Division of Critical Care  
Director, PCAT Scholars Program  
Department of Pediatrics  
University of Utah

Fernando P. Polack, MD  
Cesar Milstein Professor of Pediatrics  
Division of Infectious Diseases  
Vanderbilt University Medical Center  
Director, Fundacion, INFANT, Argentina
**Highlighted Projects**

**Filtered Sunlight for Neonatal Jaundice**
Neonatal jaundice has been effectively treated in the developed world using conventional phototherapy; however, it continues to be a significant health challenge for newborns in many developing countries with inadequate infrastructure. If left untreated it can lead to serious neurodevelopmental issues and even death.

Filtered sunlight is a novel, practical, and inexpensive method of phototherapy that potentially offers a safe and efficacious treatment strategy for the management of neonatal jaundice in countries with sufficient sunlight where conventional phototherapy treatment is not available. The results of this study demonstrate that filtered sunlight is no less efficacious than conventional phototherapy in the treatment of neonatal jaundice. This treatment offers a practical, affordable, safe, and often the only method to treat neonatal jaundice in low resource settings.

**Treating Preschool Children for Schistosomiasis**
A study by Dr. Francisca Mutapi at the University of Edinburgh confirmed that pre-school children carry significant schistosome infections, and that most of these infections are missed by the current, widely-used egg count diagnostic method. Treatment not only effectively reduced infection levels, but also significantly reduced morbidity levels both within 12 weeks and 12 months of treatment for both preschool and primary children.

Preliminary results indicate that anthelminthic treatment also significantly reduced markers of inflammation and boosts immune responses associated with resistance to re-infection. Taken together the results indicate that a single anthelminthic treatment has significant health benefits for both preschool and primary school children, with very low re-infection rates being recorded within a year of treatment.

**Contact Information**

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