

**RESEARCH FUNDED BY THE BENIGN ESSENTIAL BLEPHAROSPASM**

**RESEARCH FOUNDATION, INC.**

**As of March 2020**

<b>YEAR</b>	<b>DOCTOR(S)/PROJECT</b>	<b>AMOUNT</b>
<b>2020</b>	Dr. Rona Silkiss, MD, FACS – San Francisco, California <b>The Effect of Non-Psychoactive Cannabidiol as an Adjunct to Botulinum Toxin</b>	<b>\$70,061</b>
<b>2020</b>	Dr. Mark LeDoux, MD, PhD – Memphis, Tennessee <b>The Investigation of REEP4 as a Gene for Blepharospasm</b>	<b>\$40,000</b>
<b>2019</b>	Dr. Xin Jin, PhD – San Diego, California <b>Unraveling Hierarchical Network Loops in Isolated Dystonia (Joint Project with Dystonia Coalition)</b>	<b>\$15,000</b>
<b>2019</b>	Dr. Brian Berman, MD, MS – Denver, Colorado <b>Non-Invasive Inhibitory Neurostimulation for the Treatment of Blepharospasm: A Pilot Study</b>	<b>\$75,000</b>
<b>2018</b>	Dr. Alfredo Berardelli, MD – Rome, Italy <b>Longitudinal Analysis of Clinical and Neurophysiological Variable in Idiopathic (Benign Essential) Blepharospasm</b>	<b>\$31,000</b>
<b>2018</b> – <b>2015</b>	Dr. H. A. Jinnah, MD, PhD – Atlanta, Georgia <b>Project 4: Improving the Diagnosis of Blepharospasm and Related Disorders (Joint Project with Dystonia Coalition)</b>	<b>\$175,000</b>
<b>2014</b>	Quoc Nguyen, PhD – San Diego, California <b>Pharmacology of the Modulation of the Eye Blink Reflex Probed by High-Speed Two-Photon Calcium Imaging</b>	<b>\$50,000</b>
<b>2014</b>	Dr. Mark LeDoux, MD, PhD – Memphis, Tennessee <b>Genetics of Blepharospasm</b>	<b>\$80,000</b>
<b>2014</b>	Dr. Aparna Wagle Shukla, MD – Gainesville, Florida <b>Combined Effects of rTMS and Botulinum Toxin in Benign Essential Blepharospasm</b>	<b>\$50,000</b>
<b>2013</b>	Dr. L. Craig Evinger, PhD – Stony Brook, New York <b>A Novel Treatment for Benign Essential Blepharospasm</b>	<b>\$10,000</b>
<b>2013</b>	Dr. Brian Berman, MD, MS – Denver, Colorado <b>Neural Mechanisms of Reflexive Blinking and Eye Muscle Spasms in Blepharospasm: An Event-Related fMRI Study</b>	<b>\$73,923</b>
<b>2013</b>	Dr. H. A. Jinnah, MD, PhD – Atlanta, Georgia <b>Neuropathology of Blepharospasm</b>	<b>\$75,000</b>
<b>2013</b>	Dr. David Copenhagen, MD – San Francisco, California <b>Corneal Mechanisms of Pain During Photophobia</b>	<b>\$49,762</b>
<b>2012</b>	Dr's. Tatiana Fuchs, PhD & Laurie Ozelius, PhD – New York, New York <b>Identification of a Primary Blepharospasm Gene Using Exome Sequencing</b>	<b>\$51,000</b>
<b>2011</b>	Dr. Cristopher Bragg, PhD – Boston, Massachusetts <b>Investigating the Effects of the DYT6 Dystonia Protein, THAP 1, on Par-4 and the D2 Dopamine Receptor</b>	<b>\$35,000</b>

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2011	Dr's. Andrew Harrison, MD, Linda McLoon, PhD, & Michael Lee, MD – Minneapolis, Minnesota <b>Potentiating Botulinum Toxin A Effectiveness Using Co-Treatments</b>	\$35,000
2011	Dr. Alfredo Berardelli, MD – Rome, Italy <b>A Family Study of Increased Blinking in Primary Blepharospasm: Epidemiological and Neurophysical Aspects (Published in Neurology 80 on June 11, 2013, Page 2241)</b>	\$30,000
2011	Dr. Allan Wu, MD – Los Angeles, California <b>Modulation of the Blink Reflex with Alternating Trigeminal Nerve Stimulation in Blepharospasm</b>	\$53,000
2011	Dr. David Peterson, PhD – San Diego, California <b>The Interaction of Ophthalmic and Dopaminergic Factors in the Pathogenesis of Blepharospasm</b>	\$31,884
2010	Dr's. Andrew Harrison, MD, Linda McLoon, PhD, & Michael Lee, MD – Minneapolis, Minnesota <b>Potentiating Botulinum Toxin A Effectiveness Using Co-Treatments</b>	\$50,000
2010	Dr. Giovanni Defazio, MD – Bari, Italy <b>Development and Validation of Clinical Diagnostic Guidelines and a Novel Severity Rating Scale for Primary Blepharospasm (Joint Project with Dystonia Coalition)</b>	\$12,500
2008	Dr. Angelo Quartarone, MD – Messina, Italy <b>Role of Corneal Sensitivity in the Pathophysiology of Blepharospasm</b>	\$49,000
2007	Dr's. Jill Ostrem, MD & Philip Starr, MD, PhD – San Francisco, California <b>Subthalamic Nucleus Deep Brain Stimulation for the Treatment of Cranial-Cervical Dystonia (Meige Syndrome)</b>	\$50,000
2006	Dr. Giovanni Defazio, MD, PhD – Bari, Italy <b>Non-Conventional Imaging Studies in Benign Essential Blepharospasm</b>	\$30,000
2006	Dr. Laurie Ozelius, PhD – New York, New York <b>Whole Genome Association Studies to Identify a Blepharospasm Gene</b>	\$80,000
2006	Dr. Kirsten Zeuner, MD – Kiel, Germany <b>Probing the Plasticity of the Blink Reflex Circuit in Patients with Blepharospasm</b>	\$60,000
2006	Dr. Mark Hallett, MD – Bethesda, Maryland <b>Closed International Blepharospasm Workshop – took place in Houston, Texas. Representing six foreign countries and the US, thirty-five doctors attended.</b>	\$65,000
2004	Dr. David Kleinfeld, PhD – San Diego, California <b>Blepharospasm as a Result of Excitatory Sensorimotor Feedback</b>	\$55,683
2004	Dr's. Jianhua Wang, MD, PhD & Steven Feldon, MD, MBA – Rochester, New York <b>Tear Dynamics of Blepharospasm</b>	\$50,780

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2003	<p>Mattie Lou Koster Fellowship Established Dr. Elizabeth Ulrich Peckham under the Following Mentors: Dr's. Andrew Singleton, MD &amp; Mark Hallett, MD, NIH – Bethesda, Maryland</p> <p><b>Characterization and Collection of Families with Blepharospasm; Facilitating the Identification of Genetic Defect(s) Causing Blepharospasm (Published 11/06 &amp; 3/09 in the Journal of the Movement Disorder Society)</b></p> <p>*BEBRF Board of Directors voted to fund this Fellowship, but NIH decided to fund it entirely.</p>	\$60,000*
2003	<p>Dr's. Bradley Katz, MD, PhD &amp; Kathleen Digre, MD – Salt Lake City, Utah</p> <p><b>FL-41 Tinted Spectacles in the Management of Blepharospasm</b></p>	\$15,193
2003	<p>Dr. Motohir Kiyosawa, MD – Tokyo, Japan</p> <p><b>Study of Cerebral Glucose Metabolism and Benzodiazepine Receptors in Patients with Essential Blepharospasm</b></p>	\$60,788
2002	<p>Dr. Alan Scott, MD – San Francisco, California</p> <p><b>Removal of Motor Neurons with a Novel Immunotoxin</b></p> <p>*This project was not completed due to unforeseen circumstances. The unused funds were returned to the Foundation.</p>	\$41,095
2002	<p>Dr. Philip Bonner, PhD – Lexington, Kentucky</p> <p><b>Long-term Reduction of Muscle Function Through Chemo-Myectomy &amp; Inhibition of Regeneration</b></p>	\$64,661
2002	<p>Dr's. Andrew Harrison, MD, Stephen Christiansen, MD, &amp; Linda McLoon, PhD – Minneapolis, Minnesota</p> <p><b>Novel Immunotoxin Therapy for Muscle Spasm Disorders</b></p>	\$68,554
2001	<p>Dr. Paul Fishman, MD, PhD – Baltimore, Maryland</p> <p><b>Permanent Motor Chemodeneration with a Tetanus-Diphtheria Hybrid Neurotoxin</b></p>	\$58,300
2001	<p>Dr. Robert Baker, MD – Lexington, Kentucky</p> <p><b>Functional MRI in Benign Essential Blepharospasm Mapping of Cortical and Subcortical Areas Involved in Spontaneous and Reflex Blinking</b></p>	\$41,704.64
2001	<p>Dr. Giovanni DeFazio, MD – Bari, Italy</p> <p><b>Genetics of Blepharospasm</b></p>	\$36,600
2001	<p>Dr. Kathleen Digre, MD – Salt Lake City, Utah</p> <p><b>Photophobia and Blepharospasm</b></p>	\$5,300
2000	<p>Dr. Padma Mahant, MD – Phoenix, Arizona</p> <p><b>Risk Factors and Familial Occurrence of Blepharospasm</b></p>	\$35,000
2000	<p>Dr. Philip Bonner, PhD – Lexington, Kentucky</p> <p><b>Inhibition of Axon Sprouting After Botulinum Toxin</b></p>	\$51,203.11

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2000	Dr. Mark Hallett, MD, NINDS, NIH – Bethesda, Maryland <b>Closed International Blepharospasm Workshop – took place in Bethesda, Maryland. Representing five foreign countries and the US, forty doctors attended.</b> Funded by the Allergan Foundation.	\$65,000
1999	Dr. Mark LeDoux, MD, PhD – Memphis, Tennessee <b>Eyelid Sensorimotor Networks in Rodents &amp; Primates</b>	\$35,000
1999	Dr. Robert Morecraft, PhD – Vermillion, South Dakota <b>Cortical Control of the Upper Facial Musculature: Organization of Central Systems with Etiological Potential to Induce Involuntary Facial Spasms – 3<sup>rd</sup> year</b> (this pilot study led to NIH grant for 5 years – through 2005)	\$22,896
1998	Dr. Josep Valls-Sole, MD, PhD – Barcelona, Spain <b>The Role of Prepulse Modulation of the Blink Reflex in the Pathophysiology of Blepharospasm &amp; Meige’s Syndrome (Report was published in Clinical Psychology)</b>	\$8,800
1998	Dr. Robert Morecraft, PhD – Vermillion, South Dakota <b>Cortical Control of the Upper Facial Musculature: Organization of Central Systems with Etiological Potential to Induce Involuntary Facial Spasms – 2<sup>nd</sup> year</b>	\$40,450
1997	Dr’s. Susan Warren, PhD & Paul May, PhD – Jackson, Mississippi <b>Physiology of Blink Circuits in an awake Behaving Monkey</b>	\$19,292
1997	Dr’s. Linda McLoon, PhD & Jonathan Wirtschafter, MD – Minneapolis, Minnesota <b>Minimizing Inflammation &amp; Maximizing Muscle Loss with Doxorubicin Chemo-Myectomy for Treatment of Blepharospasm</b>	\$14,443
1996	Dr. John McCann, MD – Salt Lake City, Utah <b>Trial of Cervical Sympathetic Blockade for the Treatment of Benign Essential Blepharospasm</b>	\$13,000
1995	Dr’s. Mark Hallett, MD, NINDS, NIH & Robert Daroff, MD – Bethesda, Maryland <b>Closed International Blepharospasm Workshop – took place in Bethesda, Maryland. Representing six foreign countries and the US, thirty-eight doctors attended. (Article Published in Neurology)</b>	\$25,763
1994	Dr. Robert Forget, PhD – Quebec, Canada <b>Clinical &amp; Electrophysiological Characterization of Non-Paralytic Involuntary Eye Closure</b>	\$43,809
1994	Dr. Michael Hutchinson, MD, PhD – New York, New York <b>Neuroimaging of Blepharospasm</b>	\$62,325
1993	Dr. Bartley Frueh, MD – Ann Arbor, Michigan <b>Characterization of the Physiology &amp; Biochemistry of Normal Human Adult Pretarsal Orbicularis Oculi Muscles</b>	\$11,700

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1993	Dr. George Krauthamer, PhD – Piscataway, New Jersey <b>Activation of Orbicularis Oculi Motoneurons by the Basal Ganglia</b>	\$20,000
1993	Dr. Jean Jacoby, PhD – New York, New York <b>Use of CA-Channel Blockers to Reduce Eyelid Contractility in the Alert Rabbit</b>	\$32,733
1993	Dr. Robert Baker, MD – Lexington, Kentucky <b>Excitability of Blink Systems in the Blepharospasm Patient</b>	\$23,762
1993	Dr's. Linda McLoon, PhD & Jonathan Wirtschafter, MD – Minneapolis, Minnesota <b>Testing an Improved Doxorubicin Chemo-Myectomy Protocol in Monkeys: Reduction of Skin Ulceration and Increased Muscle Loss with Cyclosporin Co-Treatment</b>	\$7,879
1992	Dr. John Mazziotta, MD, PhD (First Mattie Lou Koster Scholar) – Los Angeles, California <b>PET Studies of Patients with Blepharospasm &amp; Meige Syndrome</b>	\$67,242
1990	Dr. Joel Perlmutter, MD – St. Louis, Missouri <b>Task-Related Blood Flow Responses in Benign Essential Blepharospasm – PET Study</b> Funded by MLK Endowment and continued through NIH grant.	\$30,000
1990	Dr. Kathy Alderson, MD – Salt Lake City, Utah <b>Reorganization of Neuromuscular Interactions Following Botulinum Toxin Injection for Therapy of Benign Essential Blepharospasm</b>	\$23,495
1990	Dr. John Porter, PhD – Lexington, Kentucky <b>Quantitative Assessment of the Effects of Oculinum on Eyelid Function: A Model for Evaluation of Improvements in Clinical Treatment of Blepharospasm</b>	\$20,000
1990	Dr. Jean Jacoby, PhD – New York, New York <b>Effect of the CA Channel Blocker Diltiazem on Orbicularis Oculis Muscle Contractility</b>	\$20,000
1989	Dr. Jay Schneider, PhD – Philadelphia, Pennsylvania <b>Neurochemical &amp; Receptor Autoradiographic Assessment of a Possible Primate Model of Blepharospasm/Meige Syndrome</b>	\$15,000
1989	Dr's. Joseph Jankovic, MD & James Jerger, MD – Houston, Texas <b>Stapedius Muscle Reflex in Cranial Dystonia</b>	\$10,000
1989	Dr. Stewart Abramson, PhD – Pittsburgh, Pennsylvania <b>Development of New Neuromuscular Blocking Agents for the Treatment of Blepharospasm</b>	\$15,000
1989	Dr. Janice Massey, MD – Durham, North Carolina <b>Study of the Remote Effects of Botulinum Toxin</b>	\$20,000
1988	Dr. Alan Scott, MD – San Francisco, California <b>Blepharospasm Treatment by Botulinum Toxins (Effects of B, D, F, &amp; G)</b>	\$20,000

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1988	Dr. Richard Anderson, MD, et al – Salt Lake City, Utah <b>The Chronic Effects of Botulinum Toxin on the Neuromuscular Junction</b>	<b>\$5,600</b>
1988	Dr. Jonathan Wirtschafter, MD – Minneapolis, Minnesota <b>Chemo-Myectomy with Adriamycin</b>	<b>\$5,000</b>
1987	Dr's. Gerald Bratton, DVM, PhD, & W. R. Klemm, DVD, PhD – College Station, Texas <b>Development of an Animal Model for Research on Blepharospasm</b>	<b>\$18,800</b>
1987	Dr. John Hotson, MD – San Jose, California <b>Blepharospasm Memory-Contingent Saccades</b>	<b>\$14,972</b>
1985	Dr. Joseph Jankovic, MD – Houston, Texas <b>Research on Botulinum Toxin Injections to Relieve BEB/Meige &amp; Related Disorders</b>	<b>\$19,645</b>
	<b>Total Research Funded to Date:</b>	<b>\$2,823,598</b>