

A Message from the CEO

Dear Supporters,

2018 was a year of unprecedented growth and opportunity for NDF, its patients, and scientists. We received a transformative matching grant from a philanthropic organization committed to cutting edge science, and it was humbling to see our community rally to make accepting it legally viable. It would be fun to say that our most successful gala in NDF's history raised a million dollars in one night, but that wouldn't be quite true. It has taken us 4 years to foster the global and local support from you, our donors, that culminated in a beautiful night of art, music, and true philanthropy.

Our robust online presence has allowed for NDF's global reach. Not only did that reach increase our donor base by over 300%, but it has helped us grow our identified patient population by 27%. This increases our value to the biopharmaceutical industry, on whom we rely so heavily for curative therapies. I am delighted to report that the \$2M in funding we raised in 2018 has been furthering our goals through NDF symposia and other important events. These events lead to new, shared collaborations and potential treatments. Funds gifted by NDF to the NIH for ManNAc trials and our subsequent efforts in gene therapy with the FDA are a few of our promising examples.

On behalf of our Board of Directors, scientific team, staff, carriers, and patients alike, I wish to thank every one of our donors for your donations and for honoring pledges made at our gala last November. Without you, none of this success would be possible. I look forward to seeing you at our 2019 Gala on November 17th!

Sincerely,

Let. Wee.

Lalé J. Welsh, CEO/Executive Director, NDF

2018 in Review

Awareness Impact:

359%

increase in donor base

27%

growth in NDF patient registry

80%

increase in global reach – 29 countries and territories now represented **37**%

increase in online followers

11

conferences attended, allowing us to forge global and strategic relationships 6

speaking engagements, establishing NDF as the leading organization dedicated to GNEM

3

biotech companies engaged as prospects for gene therapy funding

Events Impact:

1

Gala – Our most successful fundraising event to date 2

Ambassador outreach events

3

Symposia (UK, Turkey, and US) and 2 Online Seminars

45%

increase in engagement of never before reached people in regional, young adult community that is disproportionately affected by GNEM

NDF Mission

Our mission is to enhance the quality of the lives of people living with GNE Myopathy (also known as HIBM)² through advocacy, education, outreach, and funding for critical research focused on treatments and a cure.

About GNE Myopathy

GNE Myopathy—or HIBM-is a distal myopathy: a rare genetic disease starting at the feet, causing muscles to slowly weaken. GNE Myopathy is not life-threatening, but it may lead to physical debilitation within two decades of diagnosis. Symptoms usually begin to develop in early adulthood, between late teens to early 30's. GNE Myopathy exists in all races and nationalities, worldwide; however, ongoing natural history studies3 show elevated carrier rates in certain populations of Eastern European and Asian heritage; including but not limited to Jewish, Persian, Uzbeki. Arab. East Indian. Indonesian and Japanese.

Contact Us

CEO/Executive Director Lalé Welsh

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New York

10 Bond Street Suite 330 Great Neck, NY 11021 (516) 441-7126

Tax ID

06-1789643 Registered 501(c)(3)

Learn More

info@CureHIBM.org CureHIBM.org

Financial Impact:

\$2,000,000 raised*

693

individual donors

3

awardees celebrated

Philanthropy Award **David Dahl**



David Dahl accepting award from Jenifer Yashari

Community Impact Award **Shari Rezai**



Shari Rezai accepting award from presenters and gala musical performers Sussan Deyhim & Chloe Pourmorady

Advocacy Award NDF Ambassadors



Desiree Pakravan and Sogol Ashourpour, Gala Co-Chairs representing the NDF Ambassadors

NDF has documented GNE Myopathy patients in 29 countries and territories.



Bangladesh Bulgaria Canada Côte d'Ivoire Egypt England France Germany India Iran

Ireland Israel Italy Japan Nepal

The Netherlands Northern Ireland Pakistan Palestinian Territories Portugal Russia Saudi Arabia Scotland South Korea Suriname

Taiwan Turkey United Arab Emirates United States



NDF Staff & 2018 Board Members, left to right: Ralph Loren, Nancy Lurie (NDF Director of Operations), Carolyn Yashari Becher, Carol Gelbard, Lalé Welsh (NDF CEO), Tricia Mullins, Robert Becher, Jason Taban and Michael Banayan.



2018 Gala Art Exhibition: PastForward: Through the Lens of Iranian Women

^{*}Including November 2018 pledges

2018 Program Accomplishments

Clinical Research:

Completed funding of 2 year Haddassah Grant

Completed funding of UCLA grant for research in the Middle East

Completed funding of NIH ManNAc trial assistance grant

Begun sample collection of 2 year WGS study with PerkinElmer

Begun funding of RNA Sequencing study with Yale/Lek Lab

Begun WGS study with NIH

Identified new researchers, patients, and physicians in multiple new countries

Patient Advocacy:

Los Angeles 2 day Symposium

Addition of CPAs in Germany, Côte d'Ivoire, and Israel

Sponsored or participated in patient days in UK, Turkey, and India (WWGM)

Inaugural Online Patient Seminars

Empowered patients to self-advocate through quarterly Certified Patient Advocate meetings

Rare Disease Day Rare Reality Campaign

Featured speaker at Global Genes Patient Summit + European Neuromuscular Center Conference (ENMC)

Taught other rare disease groups how to collaborate and build their organizations

Outreach & Education

Celine Fundraising & Outreach Event in New York

Ambassadors' educational friend raising dinner

Press coverage by rare disease organizations including Global Genes, Think Genetic, Patient Worthy, Zeal Access, and The Mighty

Media placement in international cultural publications

Secured coverage in radio, digital, and broadcast news outlets

Your Donations At Work

90 cents⁴ of every dollar goes towards funding scientific research and core programs providing resources to families living with GNE Myopathy.

Income Sources Grants Major Donors Individual Giving

10% 11% Clinical Research Fundraising Awareness & Education Patient Advocacy Overhead

Where Your Money Goes



At our 2018 Symposium at UCLA, GNEM Patient and NDF Patient Advocacy Program Manager, Tara Voogel accepting this Certificate of Congratulations from the Office of Los Angeles Mayor Eric Garcetti



Patients and family members from around the world gather together at NDF's 5th Annual Symposium on GNE Myopathy

Thank you to our Generous Donors

\$1,000,000 and up

Anonymous 501(c)(3) Private Foundation

Visionaries - \$100,000 and up

Michelle & Bob Etebar*

Benefactors - \$50,000 to \$99,999

Confidence Foundation

Patrons - \$25,000 to \$49,999

Rita & Sharyar Aynesazan* Carolyn Yashari Becher & Rob Becher Rita Neman & Shaoul Javaheri*

Heroes - \$15,000 to \$24,999

Quinn Emanuel Foundation

Champions - \$10,000 to \$14,999

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Leaders - \$5,000 to \$9,999

Shirin & Kourosh Akhtarzad Azita & Michael Banayan Yas & Bob Baravarian Angela & (Bob) Behzad Barouti Angela & Bob Behzad Celine New York Emser International

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Tanaz & Kerry Assil Beverly Hills Rotary Ramin Bijari Fariba & Farid Efraim Michael Eisner Sharon & Chad Eshaghoff Galashan Family

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Natalie & Michael Zarabi

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Jessica & Shahin Ghadir Mehraz & Abraham Hakimi Deborah & Edward Kaen** Leadiant Biosciences Looking Above and Beyond, Inc. Alex & Mehrdad Monsef* Shawn, Kevin & Tyler Neman

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Tawnie Crowe Sunny Dale Daniel Damaghi Soheila & George Daneshgar Erha & Shahin Dardashti William Delvac Jon Drucker Anabel & Shahram Elie Rene & Danny Farahmandian Sharon & Herb Glaser Elizabeth Grace Natasha & Sharon Hakakian David Haloossim Monica & Mark Haloossim

Just the other day we were talking about how we use the word patients all the time. Maybe there is another, better word, for us. I did some research online and I realized that, no, there isn't a better word. Patients as a noun is someone with a medical condition, but patient as an adjective is capable, willing to endure, thoughtful, attentive, unflappable.

So, we are patients. We are capable. We are willing to endure. I am thankful for all the patients that I have connected to. I feel like you are my family. Every email I get, I will answer. Any questions you have, I will research, and try to answer for you. I am thankful for meeting all of you, all the board members, all the parents, all the caregivers, everyone. We are thankful for you.

- Amy Curran

GNEM patient and NDF Patient Advocacy Program Manager

Anna & Bijan Rodd

Ultragenyx Pharmaceutical

Yerushalmi Family* Sabrina & Kamram Younesi*

Behrooz Neman Natasha & Shawn Sedaghat Shirin & Shaw Shahery Shahab & Shahriar Tehrani** Shirin & Peyman Yadegar

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NDF encapsulates hope; hope for me and the many other GNEM patients who are suffering. NDF means that I and others like me are not isolated. The staff at NDF treats all with utmost care and dignity. Most of all, they listen to the GNEM community. NDF is well positioned and well qualified to continue exploring all avenues of science to bring a cure for GNE Myopathy.

- Tara Voogel

GNEM patient and NDF Patient Advocacy Program Manager

Shohreh & Medhi Soroudi* Jila & Benjamin Yadegar* Kambiz Yadegar Ramesh & Emanuel Yashari Anonymous Anonymous

Janet & Siamak Okhovat Lidi Pourrabbani Daniel Skura Azita & Albert Taban Lalé Welsh* Mike Yim Anonymous

Keyuri Patel George & Katrin Peykar Stacy Pobre Matt & Mahnaz Pouratian Elham & Farad Pourbaba Roxanna Rahban Zaheeda & Nav Rahemtulla Shanon & Phillip Rahimzadeh Maurice Refoua Stephen Sacks Juliana & Ramin Saghian Jasmine Sassounian Moussa Shaaya Edwin Shaolian Mike Shayestehfar Caroline & Robby Soofer Neda & Danny Sooferian Negar & David Soufer Marci Surfas Jason Taban Christopher Thomas Sharon & Touraj Tour Roman Tsunder Tiffany & Elroy Vojdani Niloufar & Dariush Yashar Mahnaz & Manoochehr Yashari Anonymous Anonymous

Advocates - \$500 to \$999

Matt Albert S Azevedo John Bambury Jennifer Yashari & Noah Bartfeld Arezou & Stephan Berghoff Jessica Bowman Angel & Behrooz Broukhim William Buckley Lina & Michael Cohan Sandra & Avi Cohen Amy Bersch & Christopher Crain Ilana & Babak Daftari Jasmine & Michael Danielpour Michelle & Amir Dar Michael Davidson Caroline & Fred Delijani Kena & Benjamin Efraim Natasha & Howard Elyashar Golden Doaba Enterprises Lili Eshaghzadeh John Fabre Azita & Jack Farahi Raheleh & Bahman Farahnik Yasmine Fattahi Magami Rebecca & Michael Feiz Dana Feldstein Catherine & Solomon Gabbay Carol & Kevin Gelbard Sharon and Michael Gilardian John Steven Gordon Kacie and Adam Griffin

Supporters - \$250 to \$499

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Sylvia Hakim

Kathy Adamek Flor Aframian Nina & Shauna Afshani Elaine Albert Shawn Arianpour Myra Aron Zoe & Elijah Aron ARS Hospitality Empera Arye Elliot Arveh Babak & Nasi Bamshad Diane Bani-Esraili Priscilla Barlow Ellen & Michael Bartfeld J Michael Bates Linda & Michael Camras Michael Carlinsky Lida & Behrouz Dardashti Samantha Davis Pavam Ebrahimian Ariane Eshaghzadeh Cvrus Etemad Alexandra Faber Tiffany & Joubin Gabbay Roya Ghafouri Ann & James Gianopulos

Friends - Under \$250

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Nitin Mohan

Natasha Moradzadeh

Adam Bandera Connie & Roger Bandera Kelli & Brent Bankston Laura Bass Gail Shust & Joe Batutis George Beast Barbara Becher Jackie & Gary Becher Cassie & Michael Becher Maryellen & Scott Becher Rebecca Benhaghnazar Doris Benlevy Julie & Justin Berger Holly & Bob Binafard Valentine & Bill Boyd Erin Bray

Linda & Harvey Monastirsky

I've been on the board of NDF Ambassadors for almost five years and it truly feels like we are a family. Since joining the organization, I have gained so much knowledge about the research and commitment being put into finding a cure that I felt it was important to be screened to spread awareness to my community. This collective energy inspires me to encourage peers to become conscious and assist in our efforts for treatment and prevention.

- Desiree Pakravan NDF Ambassadors Co-Chair

ron Navidzadeh Wi

Sharon Navidzadeh Daniel Naysan Emina Nazarian Farahnaz & Homayom Nehoray Tyler Neman Nikou & David Norouzi Shan Nourian Stella Pae Daniel Pantucci Shane Parker Ghazaleh (Rachel) Partieli Varsha Patel Jayesh Patel Jeffrey Perry Barrie & Adam Pivko Perfect Properties Shirin & Ramin Rahimi Hava & Paul Rahimian Douglas Ramsey Mahesh Ranchhod

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Julia Taban
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Courtney & Jared Wolff
Ivan Wolkind
Rabbi David Wolpe
Martha Wright
Sam Yamini
Elena & Kourosh Yeshoua
Leila Yousefzadeh
Shannon Larian & Jacob Zackary

NDF has gone from a fundraising organization that supported one or two research groups to an organization that is steering HIBM research. NDF is bringing together and directing top notch scientists who are now eager to work on a disease that they probably knew very little about 5-10 years ago. These scientists bring new enthusiasm, new ideas and passion to the cause.

In addition, the team has managed to seamlessly integrate science with patient advocacy and support by utilizing and incorporating the power of educated and dedicated patients.

- Dr. John Hakimi Biotech Industry Expert NDF Scientific Advisory Committee Ross Cofer Benjamin Cohanzad Amy Cohen

Stephanie & Matthew Cohen

Gina & Paul Coletti Rebecca Conahan Richard Cooley Zoe & Daniel Ćorwin Dan Counihan Jennifer Cowan Debra Dacosta Susan Dampf Bronte Dardashtv Travis Darsam Marc Dauber

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Allison & Michael Graff-Weisner

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Gregory Jones Frances Jones Caroline Joseph

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Mary Lalezary Rochelle Laner

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Julia Magnon Layla Mahdavi Marolon Mangham Debbie Markiles Daniel Markowitz Candace Massachi Lailee Mavadat

Maw Maw

Joanna & Mike McFarland

Lynn McFarr Ben Mehdizadeh Ashley Mehdizaden Julia Meltzer Dave Mendoza Nancy Meunier

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Sara & Larry Sloan Jenny Smiley Jiwon & Steven Song

NDF to me is a vehicle of hope, energy, and positivity, which would definitely be able to drive GNEM community through today's hardships to tomorrow's happiness.

- Ashutosh

GNEM patient and NDF Certified Patient Advocate, India

Vishal Patel Nima Pedram Casey Picard Sara Pitz Limor Pouldar Judy Price

Amy & Navid Rachman Nilou Raiman Anjay Ranchhod Ryan Ranchhod Ajay Ranchod Candace Ravan Madeleine &

Shahryar Ravanshenas

Brian Reynolds Laura Richter Marc Riedl

Elena & Jack Rochel Laner Rochelle Natasha Rojany Lauren & Gil Rojany Jodie & Micha Rojany Michelle & Marc Rosenbach Malancy & Mike Rosenzweig

Farivar Roshanian Cyndi Sarnoff Ross & Michael Ross Tomer Rothschild Marilyn & Irwin Rudy Fred Rupnarain Mirriam Saeed Eliot Saeedi Nicole Sakhai Benjamin Samuels Julie Sandor Robert Sanger Laura Saul Ellissa Schneider Steven Seidman

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David Werner Mary Wheless David Wick Allyson Wiley Don Williams Barbara Wuebbels Loris Yadegaran Wee Yan Loong Jennifer & Jake York Brandon Younesi Maryam Younesi Salim Youssefzadeh Jesse & Amit Zilberstein Andrea Zirman

2018 Pledge in Progress

2018 Pledge Pending

NDF Impact

NDF is the world's largest GNEM-only patient advocacy organization. Our programs fund scientific research and provide comprehensive resources, support and advocacy to affected individuals and their families/caregivers. NDF provides outreach and education to scientists and physicians who collaborate, share data to facilitate proper diagnosis, and encourage timely genetic testing to prevent the passing down of the disorder to future generations.

2019 Scientific Initiatives

Financial Support (in the form of a gift) of the National Human Genome Research Institute (NHGRI) of The National Institutes of Health (NIH) Phase 2b clinical trial entitled, "A Randomized, Double-Blinded, Placebo-Controlled, Multi-Center Study to Evaluate the Efficacy of N-acetyal-D-Mannosamine (ManNAc) in Subjects with GNE Myopathy.

Funding of Goldyne Savad Institute of Gene Therapy, Hadassah Hebrew University Medical Center's research in the development of a knock-in mouse model and a zebrafish study. If successful, these animal models will clear a long-standing obstacle in this area and will expedite approval at the FDA level.

Funding of Lek Lab, Department of Genetics at Yale University School of Medicine research to identify and develop new biomarkers useful in tracking therapies, including gene therapy. A second proposal, investigating a CRISPR system, may provide an alternative form of gene therapy which may be more useful in certain patients.

Funding of Mount Saint Joseph University research to use sialylationsensitive lectins in GNEM patient myoblast cells with a variety of GNE mutations to identify biomarkers of disease, which can then be used to assess the potential of treatments such as gene therapy.

2019 Program Goals

Develop Patient Registry

A patient registry is the storage of many individuals' personal information and their medical history. It is typically disease-specific. Its compilation allows researchers to more accurately estimate both the prevalence and incidence of a disease and to determine the patients' natural history. Once that information is known, it can be used to more accurately advise patients and improve their care, which can lead to improved health and life expectancy — even in the absence of a cure. For this reason, patient registries are a key resource for biopharma companies to identify eligible patient populations for gene therapy research, trials and treatments. In 2019, NDF will focus on the compilation of a GNEM database, led for and by patients. The project will be supported by an NDF-sponsored internship and overseen by our scientific director, Dr. Monkol Lek, at Yale University.

Increase International Collaboration

In rare disease, international cooperation is vital to obtaining sufficient information, not only to compile patient registries but also to realize the full potential of all studies of the disease. Scientists can then build upon that data. NDF requires that all its grantees share their data — rather than work in independent silos. This is part of all our funding agreements. In 2019, NDF plans to continue its goal of serving as a unifying force among academic and research facilities worldwide. It is only through our collective efforts that progress can be made in quantifiable and meaningful ways.

Expedite Steps to Gene Therapy

Science takes time and certain processes cannot be rushed. However, new scientific contractors and advisors will be added to our roster of esteemed scientists, aiding us in pursuing our primary goal for 2019 — to continue providing the FDA with answers to their questions through studies; to identify, solicit and select a biotech partner that has the interest, (substantial) resources and professional inclination to take gene therapy to market. Financially, our goal is to raise \$3 million by December of 2019 in order to cover the initial expenses to phase 1. These funds will put us and our patients in a better position than many other rare disease patients who don't have a supporting organization successfully getting biotech focused on their disease.

Patient Advocacy

NDF will add cognitive well-being and mental health component to its advocacy program with the creation of a monthly, virtual support group for patients.

NDF'S 6th Annual Symposium on GNE Myopathy will spread its reach by taking place in several cities in 2019 including Philadelphia, Israel, Côte d'Ivoire, and Italy.

NDF will present an update at a GNEM patient day in India.

NDF's series of successful online seminars for patients will continue to provide scientific updates and topical subjects to patients and stakeholders, worldwide.

NDF will add a new class of Certified Patient Advocates to help empower patients to locally advocate for themselves and others.

Outreach and Education

NDF Ambassadors will host events to educate young adults about GNEM and to promote genetic screening in our efforts to prevent passing down the disease to future generations.

NDF will further its reach in the medical community with its inclusion in the 2019 Rare Neurological Disease Report with distribution to 20,000 neurologists in the United States.

NDF's United Youth will expand its reach to create a safe space for open dialog and advice among the children of GNEM patients.



- 1 IRS "Tipping Law" mandates that no one entity can provide a majority of funding for charitable organizations. Therefore, our \$2.5M match grant was broken into two parts, and the \$1M received in 2018 was matched by our many individual generous donors listed in this document.
- 2 Officially called GNE Myopathy, commonly known as HIBM (Hereditary Inclusion Body Myopathy). Also known as: Nonaka Myopathy, DMRV (Distal Myopathy with Rimmed Vacuoles), QSM (Quadriceps Sparing Myopathy), HIBM2 (Hereditary Inclusion Body Myopathy Type 2), IBM2 (Inclusion Body Myopathy Type 2).
- For more details see clinicaltrials.gov ID: NCT01784679 and NCT01417533.
- 4 Based on publicly shared IRS compliant financial statements. Please visit guidestar.org or curehibm.org for more financial details. 2019 Annual Report based on 2018 tax returns.