Report on the
Inaugural International Lymphangiomatosis & Gorham's Disease Alliance
Patient & Family Conference

Introduction

With the registration at capacity, more than 110 patients and family members turned out for the very first Lymphangiomatosis & Gorham's Disease Alliance Patient & Family Conference, held in Dallas, Texas, June 14-15, 2014. Attendees, including more than two dozen children, came from Europe, South America, and the United States and Canada. Five families attended who had lost a family member to lymphangiomatosis or Gorham's disease.

Experts from 14 different areas, including medicine, surgery, research, genetics, nursing, nutrition, patient registry and tissue repository, presented at the conference and met and spoke with patients and families during the two-day inaugural event. Patients and families attending found it hard to express in words the full emotion of meeting a fellow patient for the very first time but were quite vocal regarding their gratitude for the opportunity to learn about the potentially life-threatening disease affecting them or their child and meeting and getting to know “the experts” and being able to ask questions. Presenters were unanimous in their regard for the commitment by the patient community and in the value of the experience for all those attending this extraordinary inaugural gathering.

Activities for the children attending the conference were provided by a Dallas area professional in event child care. In addition to the games and planned activities, the children and teens enjoyed meeting, mostly for the very first time, other kids with their rare disease. This was among the several poignant aspects of this inaugural conference. From the photos included in this report, one can see how much fun the kids had while mom and dad were in meetings.

Following is a summary of the Conference Program. Abstracts of the individual presentations given by the Speakers are available at the LGDA website at: www.lgdalliance.org/2014/07/inaugural-patient-family-conference/
Opening - Friday, June 13, 2014

LGDA President Jack Kelly opened the conference with a presentation on the history of the foundation, which was launched in 2007 by his daughter, Jana K. Sheets, who succumbed to lymphangiomatosis in 2010. Calling the conference an historic event—the very first assembly of patients and families and specialists ever to take place in the clinical history of the diseases—he remembered patients—so many of them young—who lost their lives to lymphangiomatosis or Gorham's disease, citing many by name. Jack paused to tell the audience about two who had every intention of being in Dallas, but whose lives were suddenly taken away by this terrible disease: our Conference co-chair, Stephanie Shore, whose mother and brother attended for her, and a young police officer from northern California—father of a little boy—whose wife and sister came carrying the news of his recent death with an offer to try to help others facing the threat of our disease.

Jack outlined the conference program and spoke about the challenges for the medical and scientific communities to develop diagnostic standards, to improve medical management, and to accelerate the advancement of research leading to the development of effective therapies. He also described for the patients and families the process of drug development and delivery, with its time and cost burdens, and a number of areas in which the rare disease community is actively urging the FDA to streamline the approval process of the orphan drugs so necessary to such a small population of affected individuals.

Program - Friday, June 13

Moderator — Leland L. Fan, MD, Professor of Pediatrics (retired), Children's Hospital Colorado, Aurora, Colorado, and member of the LGDA Medical Advisory Council

Speakers:

Juan Carlos Lopez-Gutierrez, MD, PhD, began the medical/scientific program with an historical perspective for the attendees and stressed the importance of global collaboration in rare lymphatic disorders with his presentation on the History of Diagnostic & Treatment Challenges and the Necessity of International Collaboration. Dr. Lopez is Head of Pediatric Surgery and Director of the Vascular Anomalies Center at La Paz Children’s Hospital, Madrid, Spain.

Francine Blei, MD, MBA, discussed the organization of the lymphatic system and the disease characteristics in her presentation Overview of the Structure & Function of the Lymphatic Vascular System and the Pathophysiology of Lymphangiomatosis & Gorham-Stout Disease. Dr. Blei, a pediatric hematologist/oncologist, is Medical Director of the Vascular Birthmark Institute at Roosevelt Hospital in New York City, the author of the book 100 Questions & Answers About Vascular Anomalies, and associate editor of the journal Lymphatic Research & Biology.
Michael T. Collins, MD, reviewed considerations that challenge the clinician faced with differentiating between closely related, rare, musculoskeletal disorders, in the presentation he gave titled *Similarities and Differences Between Lymphangiomatosis and Gorham-Stout Disease and Fibrous Dysplasia of Bone: Implications for Treatment*. Dr. Collins, an endocrinologist, is Branch Chief, Skeletal Clinical Studies Unit at the National Institute of Dental and Craniofacial Research (NIDCR), National Institutes of Health, Bethesda, Maryland.

Timothy J. Vece, MD, discussed *Diagnostic & Management Approaches in Pulmonary Lymphangiomatosis*, including a review of the pulmonary lymphatic system, approaches to diagnosis and management, and a brief introduction to new imaging techniques pioneered at Texas Children’s Hospital. Dr. Vece is Assistant Professor of Pediatrics at Baylor College of Medicine in Houston and a pediatric pulmonologist at Texas Children’s Hospital in Houston, Texas; he recently hosted the American Thoracic Society—LGDA Rare Lung Disease Week webinar: *Pulmonary Complications of Lymphangiomatosis*.

Nicola Fabbri, MD, discussed the varied, novel treatments and management of bone loss in our disease spectrum in his talk, *Approaches to Clinical Management of Bone Disease in Lymphangiomatosis & Gorham-Stout Disease*. Dr. Fabbri is leading a program for a new clinic at Memorial Sloan Kettering Cancer Center (MSKCC) in New York City for the diagnosis, treatment, care, and study of Gorham-Stout disease; he is an orthopedic surgeon at MSKCC.

Kathleen Davis, PhD, RD, LD, CSP, introduced the attendees to the role of the lymphatic system in fat digestion and impact the chylous effusions can have on nutrition in patients with lymphatic anomalies with her presentation *Nutrition for Lymphangiomatosis and Gorham-Stout Disease*. Dr. Davis is a clinical nutritionist at University of Texas Southwestern Medical Center in Dallas. Her talk late Friday afternoon was a lively finish to the first day of a splendid program organized by our Conference Committee.

**Meet and Greet — Friday Evening, June 13**

Presentations over for the day, patients of all ages along with parents, grandparents, siblings, spouses, and doctors came together to "Meet & Greet" over coffee and dessert in one of the hotel ballrooms. There was handshaking, hugging, much laughter — even a few tears — to go with the warm conversation. Relationships were begun here that will be long cherished and built upon.

The conference “feels like a big family reunion!” one parent exclaimed. A most extraordinary affair!

The Meet & Greet was hosted by the LGDA and its research partner, The Lymphatic Malformation Institute (LMI).
Program — Saturday, June 14

Morning Session Moderator — Steven J. Fishman, MD, Co-Director of the Vascular Anomalies Center at Boston Children’s Hospital and Professor of Pediatrics at Harvard Medical School.

Speakers

Cameron Trenor III, MD, in his presentation entitled What’s in a Name? The Natural History of Lymphangiomatosis and Gorham-Stout Disease and Evolution of Terminology, spoke about the confusing nomenclature used to label our disease and reported on the recently adopted vascular anomalies classification system that gained approval at the International Society for the Study of Vascular Anomalies (ISSVA) Conference in April 2014. Dr. Trenor spoke also of the new Lymphatic Anomalies Patient Registry at the Vascular Anomalies Center at Boston Children's Hospital. (http://www.childrenshospital.org/centers-and-services/programs/f--n/lymphatic-anomalies-registry/overview) Dr. Trenor is a pediatric hematologist/oncologist and Director of Clinical Research at the Vascular Anomalies Center, Boston Children's Hospital, Harvard Medical School.

Michael E. Kelly, MD, PhD, described the characteristics, symptoms and disease behavior of generalized lymphatic anomaly (GLA, currently known as lymphangiomatosis) and Gorham-Stout disease (GSD) and stressed the need for interdisciplinary care teams in our disorders in his presentation, The Multidisciplinary Team and Developing a Classification System for Diagnosis and Management of Lymphangiomatosis and Gorham-Stout Disease. He appeared in an episode of Discovery Channel’s Mystery Diagnosis in which he talked of the steps to learning more about our complicated disease family to improve diagnostic methods. Dr. Kelly, a pediatric hematologist/oncologist, is Director of the Pediatric Cancer Program at Children's Hospital of Wisconsin and Associate Professor of Pediatrics at the Medical College of Wisconsin.

Denise M. Adams, MD, described the importance of a clinical trial in the study and development of effective therapies for a rare disease in her talk Challenges in the Design of Clinical Trials for Rare Diseases with a Discussion of the Efficacy and Safety of Sirolimus in Complicated Vascular Anomalies. Dr. Adams, a pediatric hematologist/oncologist, is the principal investigator for a recently completed Phase II Clinical Trial for complicated vascular anomalies, which included a small group of patients from our rare disease community. Dr. Adams is Medical Director of the Comprehensive Hemangioma and Vascular Malformation Center at Cincinnati Children's Hospital and a founding member of the Medical Advisory Council for the LGDA.

Matthew Warman, MD, presented Approaches to Discovering the Genetic Basis of Rare Diseases, addressing first the differences between somatic and germline mutations followed by a look at the enormous opportunities to advance understanding of rare diseases as a result of the remarkable leaps in technology used in the field of genetics. Dr. Warman gave particular attention to how the use of this new technology could help to reveal the unseen causes of diseases such as GSD/GLA. Dr. Warman is Director of the Orthopedic Research Labs at Boston Children's Hospital and Professor of Orthopaedic Surgery and Genetics at Harvard Medical School.
Andrea Burke, DMD, MD, discussed *The Search for a Blood Test to Diagnose & Assess Effectiveness of Treatment in Vascular Malformations*. Dr. Burke reviewed the research project headed by her colleague, Dr. Alison Boyce, involving the investigation of the role of protein pathways (e.g., RANKL and mTOR) in the bone that may be involved in the breakdown and loss of bone in GSD and GLA. Dr. Boyce is an endocrinologist at Children’s National Medical Center in Washington, DC. Her project is funded by the LMI. Dr. Burke is a maxillofacial surgeon at the National Institute of Dental and Craniofacial Research (NIDCR) at the National Institutes of Health. We greatly appreciated her graciously substituting for Dr. Boyce, who was unable to be with us due to an emergency.

Michael Salvatore, MS, spoke about *Facilitating Collection of Biospecimens for Investigators*, introducing the subject of tissue collection and explaining the critical need for biospecimens (i.e., blood, serum, tissue, fluid, bone) for such research purposes as determining disease cause and identifying disease biomarkers, which potentially may lead to development of effective therapies. He also explained the role NDRI will play in collecting, storing, and transporting biospecimens to investigators for research. Mr. Salvatore had a table at the conference where interested persons were able to pick up brochures and speak with him directly about donation. Mr. Salvatore is the Director of Site Management for the National Disease Research Interchange (NDRI), Philadelphia, Pennsylvania.

Lisa K. Klepper, BSN, RN, introduced the exciting new *International LGDA Registry for Lymphatic Malformations*. Lisa discussed the type of data collected, protection of registry participants’ privacy, and the value of the data to clinical research and scientific investigation. The LGDA Registry was developed during a two-year pilot project funded through the Office of Rare Diseases Research at the National Center for Advancing Translational Sciences, National Institutes of Health. Lisa is the Director of Patient Programs for the LGDA and Coordinator for the LGDA Registry. Patients may register at [www.lgdaregistry.org](http://www.lgdaregistry.org)

The Saturday morning session concluded with the premier of a video created by the Alfie Milne Lymphangiomatosis Trust to promote awareness of our diseases and encourage participation in the LGDA Registry. This beautiful, moving video documents the pain, uncertainty, struggle and hope for a cure inherent to living with a rare disease through the eyes of seven-year-old Alfie who, because of his disease, did not take his first steps until he was five years old. The video may be viewed on our website: [http://www.lgdalliance.org/2014/06/join-the-lgda-registry/](http://www.lgdalliance.org/2014/06/join-the-lgda-registry/)

Afternoon Session Moderator — Denise M. Adams, MD, Medical Director of the Comprehensive Hemangioma and Vascular Malformation Center at Cincinnati Children’s Hospital and Professor of Clinical Pediatrics at the University of Cincinnati College of Medicine

David Gerber, MD, and Melissa Mayer, RN, teamed up to present *Managing the Adult Patient with a Rare Disease*, in which they talked about the roles of the medical team as both care managers and patient advocates. Importantly, they discussed the need to address early the transition from pediatric/adolescent care to the adult care setting, and the considerations for both the patient and the care team in ensuring an effective transition. They also spoke about FDA issues of access to drugs for rare disease treatment and health insurance implications. Dr. Gerber is an Associate Professor of Internal Medicine (Division of Hematology-Oncology) at the University of Texas Southwestern Medical Center in Dallas. Ms. Mayer is a clinic nurse at the Harold C. Simmons Cancer Center at UT Southwestern where Dr. Gerber serves as Co-Leader of the Experimental Therapeutics Scientific Program and Co-Director of the Lung Cancer clinical research team.
Carlos Girod, MD, spoke about the new partnership between the LGDA and The LAM Foundation; the worldwide LAM Clinical Network will provide access for adult lymphangiomatosi patients with pulmonary involvement to clinicians experienced in the management of lymphatic pulmonary disease in adults. LAM (an acronym for lymphangioleiomyomatosis) is another rare disease with pulmonary-lymphatic involvement. Dr. Girod substituted for Francis X. McCormack, MD, Director of the Division of Pulmonary and Critical Care Medicine at the University of Cincinnati and founding Scientific Director for the LAM Foundation, who was unable to attend. Dr. Girod is Director of the LAM clinic at University of Texas Southwestern Medical Center in Dallas.

Maxim Itkin, MD, reviewed Minimally Invasive Management of Chylous Effusions, explaining how the recent developments in interventional radiology are improving lymphatic imaging and providing an effective approach for treating lymphatic conditions and chylous leaks. During his talk, Dr. Itkin explained the new method with several illustrations of the technique in the lymphatic system. Dr. Itkin is an interventional radiologist at Children’s Hospital of Philadelphia and the University of Pennsylvania.

Questions & Answer Sessions – The second half of the Saturday afternoon sessions began with two lively and informative Question and Answer sessions, during which the panelists and moderators addressed questions from the audience.
The moderators were active participants in the Q&A session, calling upon many of the other experts attending in the audience. Conference attendees presented the experts with questions on a wide variety of topics, including these:

- when orthopedic surgery might be warranted and what might be the best approaches and potential outcomes, as well as the value of plating when the bones of the skull are involved;
- follow-up questions to the presentation on sirolimus and questions regarding the rationales for the use of numerous other medications, including steroids, diuretics, bisphosphonates, vincristine, and interferon and appropriate length of therapy and adverse effects of long-term use;
- diagnostic approaches, including the value and risks of biopsy, new imaging techniques using MRI lymphangiogram developed in Houston, and the use of interventional radiology in diagnosis and management developed in Philadelphia;
- complications of the diseases such as increased risk of infections, incidence and management of ‘flares’ when the disease is more active resulting in increased pain, fevers and/or swelling, value of monitoring lymphocyte counts, leg length discrepancies, and whether the disease is likely to affect the chest if it is present only in bones in the extremities;
- experiences with, and reports of, spontaneous stabilization of disease with and without medical intervention;
- whether there is any evidence that these diseases are low-grade malignancies; and
- management of pleural and pericardial effusions.
Michael Dellinger, PhD, finished up the formal conference program after the Q&A sessions, speaking on Directions in Research and our common goal: a roadmap that advances the development of effective therapies. Dr. Dellinger cited the lack of knowledge about our diseases as the chief cause of delays in diagnosis and treatment. He described a number of projects funded by the LMI at leading research labs and institutions around the world and discussed a GLA/GSD research roadmap for the near-term. In addition to being Director of Research for the Lymphatic Malformation Institute (LMI), LGDA's research partner, Dr. Dellinger is a molecular biologist and member of the faculty at the Division of Surgical Oncology, Department of Surgery, University of Texas Southwestern Medical Center in Dallas.
Dinner Banquet — Saturday Evening, June 14

Commemorating the closing of the inaugural conference, patients, families, and doctors joined together for a gala banquet where they reflected on how meeting the experts, listening to all the information presented, and the formation of new relationships will help them in their journey—a road we hope they are stronger to travel. In his remarks, LGDA President Jack Kelly thanked the Lymphatic Malformation Institute and the Ferry family for the more than $1 million invested in nine funded projects researching GLA & GSD and Drs. Michael Dellinger and Nupur Garg, who are overseeing these projects. He spoke about the important contributions of such pioneers in the vascular anomalies field as the late Judah Folkman, MD, and John Mulliken, MD, and Steven Fishman, MD, of Harvard and Boston Children's Hospital and their interdisciplinary team model for the diagnosis, treatment, and care of complicated lymphatic disorders. He thanked Leland Fan, MD, for his long-standing support of the LGDA and his career dedicated to the care of children with rare lung diseases and recognized Wendy Chaite, Esq., who, following her daughter’s diagnosis with a rare lymphatic disease, founded the Lymphatic Research Foundation.

Jack closed his remarks by expressing the commitment that the LGDA will always be there for the patients, carrying on the vision of its founder: to give hope and find help.

Founder’s Award — Juan Carlos Lopez-Gutierrez MD, PhD

The concluding event for the Conference was the special announcement and presentation of the LGDA Founder's Award, the highest form of recognition it can give. Since its beginning in 2007, this Award has been given twice before. The current recipient, for his extraordinary help, care, kindness, medical professionalism, and leadership in vascular anomalies, is Dr. Juan Carlos Lopez-Gutierrez, pediatric surgeon, La Paz Children's Hospital, Madrid.
Remembering and Acknowledgements

In Memoriam — Stephanie E. Shore, MPAS, PA-C, Conference Co-Chair

Just weeks before the Conference, we were deeply saddened by the sudden death of co-chair, Stephanie Shore. Stephanie was a Physician Assistant at the Dallas VA Hospital Clinic where, despite her diagnosis of lymphangiomatosis, she worked tirelessly with our Veterans. Stephanie was long an active member of the LGDA community and volunteered so many times to help others. She was posthumously honored by the LGDA in a special presentation to her family during the Conference.

Acknowledgements

The Board of Directors of the LGDA wishes to express our sincere thanks to all of the patients, families, and conference speakers whose participation made for an outstanding inaugural conference, reaching a level of patient-community development that was only a dream some seven years ago when the LGDA began its work. We are so grateful for the fine efforts extended by the planning and organizing committee, co-chaired by Lisa Klepper, RN, and Stephanie Shore, MPAS, PA-C, and Charlene Waldman, Consultant. We thank Black Tie Babysitting for the outstanding program they provided for the kids.

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Speakers and attendees enjoying Saturday banquet
Speakers and attendees enjoying Saturday banquet
Kids and teens having fun and making friends