

# 2021

## ANNUAL REPORT



**TLI**  
**FOUNDATION**  
THINK  
LEAD  
INNOVATE

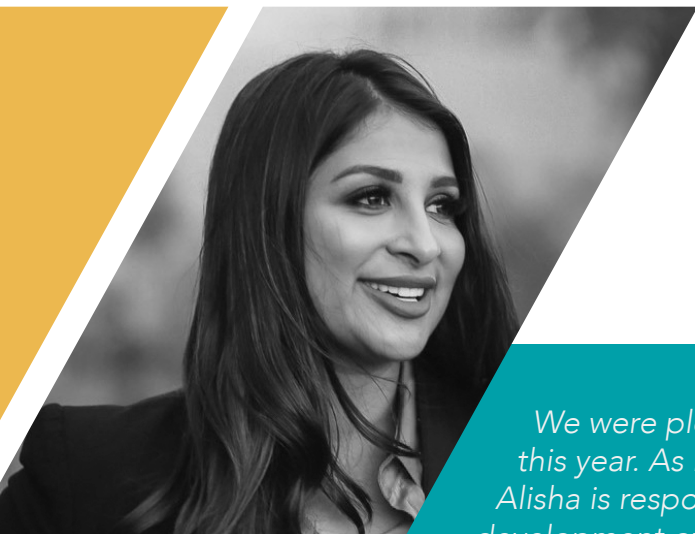


## Perspectives from Bill Oldham Founder and Chairman of the Board at TLI



*I'm very excited by the contributions that TLI continues to make, remaining persistent in the face of enormous obstacles. As we determine what works and doesn't work for individuals and underserved patient populations, we are helping to advance the state of science so that it can play a productive role in supporting researchers, providers, payers and, most importantly, patients.*

*Under the leadership of our Executive Director, Reed Hartley, we are deepening our partnerships and widening our support to serve those most in need. As strategic thinkers and experienced professionals from private and public healthcare sectors, TLI strives for a more sustainable future by making a significant impact on chronic disease, behavioral health, care design and multiple aspects of healthcare delivery.*



## Introducing Our New Board Member, Alisha Moopen

*We were pleased to invite Alisha Moopen to join our Board this year. As Deputy Managing Director of Aster DM Healthcare, Alisha is responsible for overseeing the strategic direction and development of the company. As a trustee of Aster DM Foundation, Alisha's philanthropy and involvement in social welfare through Aster Volunteers program bridges the gap between people who would like to help with those in need. As a Young Global Leader elected by World Economic Forum in 2018 and one of Forbes Middle East magazine's Top Next Generation Indian Leaders in 2018 and in 2021, she brings deep international perspectives as TLI expands our impact.*

# Message From Reed Hartley

## Executive Director TLI



### TLI Lays Groundwork for Improving Access and Health Equity for Underserved Patient Communities

*For two years, the world has been besieged by the COVID-19 pandemic, bringing a great deal of turmoil, sorrow and insight into the nation's failure to properly address the health inequities that exist in the United States. The mandate is clear: we must do everything we can to prevent the lack of access to quality healthcare from widening and address the root causes of existing health inequities that impact specific patient populations with no discrimination as to nationality, race, religious beliefs or class.*

*Toward that end, the Thought Leadership & Innovation Foundation (TLI) remains stalwart in our mission to drive innovative thinking and action on global issues relating to health to foster transformative change and improve the health and well-being of patient communities across the world. TLI lends our leadership, expertise, resources and capabilities to initiatives, communities and organizations to help them turn ideas into action—and real change—for a number of patient populations that need our help now, more than ever.*

*With 2022 upon us, the TLI team persists in disrupting healthcare status quo as we continue to build a global presence and raise awareness about healthcare challenges and the deeply innovative work that is demanded to solve them.*

***Our key priorities remain firm: advance innovative strategies to make a positive impact on individual, community and population health, healthcare, resilience and well-being.***

*We remain highly focused on finding new strategies for superior outcomes across every sector we influence, leveraging science and technology for better public health. For example, we were pleased to take on a new challenge this year: the need for benchmarking best practices for general surgery residency programs in the United States. Over 300 residency programs lack the data and analysis to compare themselves to benchmarks that will produce the best-trained residents to treat the American public.*

*TLI's Community Collaborative model continues to serve communities struggling with tenacious health-related issues, from the opioid epidemic to mental health issues related to the COVID-19 pandemic, which continue to play out across the country and around the world. In the fall of 2021, TLI and Midwest Business Group on Health began a collaboration to develop best practices for employers to improve mental health assistance programs and provide innovative support for their employees.*

*We are enthusiastic about supporting the Million Veterans Program's national research program to study how genes, lifestyle and military exposures affect health and illness of Veterans. TLI works tirelessly to analyze data to disrupt current systems focused on improving quality of life for those with chronic illness. As ever, we bring practical, hands-on solutions to those who feel overwhelmed by systemic, often heart-breaking obstacles that impede the well-being of patients and their families.*

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In the past year, TLI has made substantial progress across multiple health advancement projects. Our efforts have brought people together, inspired action and made a positive impact across a number of challenging fronts both in the United States and abroad.

Following are some highlights from the work conducted by the TLI staff and Fellows that demonstrate our commitment.



# LIMB LOSS *and* PRESERVATION REGISTRY

*Activity is health.* —————

The Limb Loss and Preservation Registry (LLPR) continues to progress toward addressing the major public health knowledge gap and provide information that will be critical to preventing limb loss, improving amputation care post-surgery, refining rehabilitation approaches and guiding the future development of prosthetics for people living with limb loss.

The LLPR will enable researchers studying medical conditions that contribute to limb loss, such as diabetes and vascular disease, to analyze the first national registry of data by factors including age, gender, type of surgery and prosthesis to support decision making for long-term care of these patients. The aim is to enhance their functionality and quality of life long-term and help enable patients to better care for themselves, work and be more active in daily life.

Led by Dr. Kenton Kaufman, Ph.D. at Mayo Clinic, stakeholders in the Orthotics and Prosthetics scientific community, clinical experts in limb loss and patient advocacy groups are working together to expand the LLPR, as well as developing standard data sets. Measuring and reporting patient data will improve evidence-based clinical decision making. The LLPR will also improve healthcare delivery for these patients and establish and share best practices to enhance whole patient care following limb loss.



The LLPR enables TLI to collect and consolidate enormous quantities of data from a variety of sources and demographics to build a complete picture. This will bring coherence to this vast repository of information so that stakeholder groups can gain a deeper understanding to generate meaningful analysis and drive innovation.

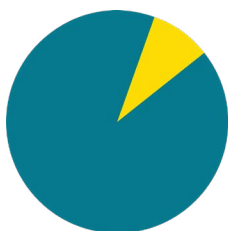
LLPR is essential to preventing limb loss, improving amputation surgeries, refining rehabilitation approaches and guiding the development of devices for people with limb loss. Furthermore, it enables researchers to study medical conditions that contribute to limb loss, analyze the data to support decision making for long-term care of these patients that will enhance their functionality and quality of life.

# Million Veteran Program (MVP)

TLI is proud to support the Million Veteran Program (MVP). Since its launch in 2011, MVP has established itself as a national research program to study how genes, lifestyle and military exposures affect health and illness. It also represents one of the largest programs on genetics and health in the world, with over 840,000 participants enrolled.

We place our focus on the key processes and develop program-level plans which impact program operations and sustainability. This is a massive longitudinal study which will provide key data to drive innovations in medicine for Veterans.

TLI is pleased to collaborate on MVP because it is also working to change the underrepresentation of women in biological and medical research. Women currently only make up about 9% of more than 840,000 MVP enrollees.

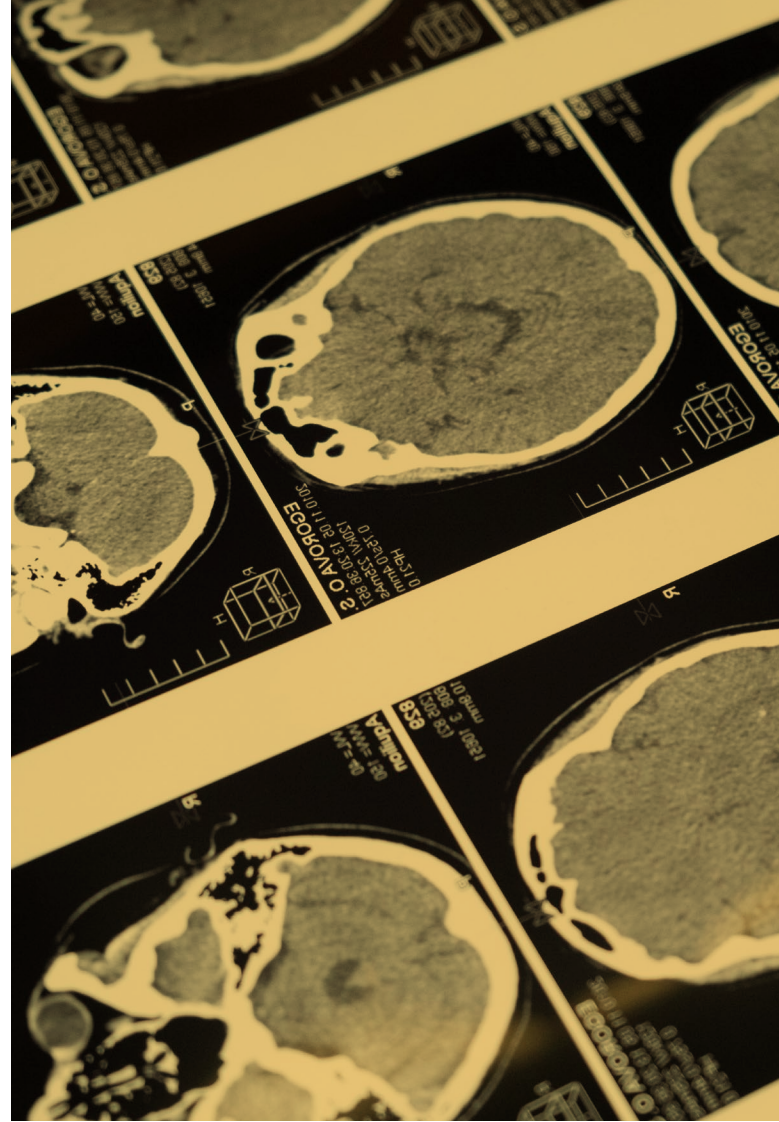


# Chronic Infection Research

Led by TLI Fellow Dr. Robert Mozayeni, M.D., our team continues to provide support to the University of Minnesota and T-Lab, a Gaithersburg, Maryland-based research partner for chronic infection research and the exploration of chronic infections and image analysis.

TLI Fellow Marna E. Ericson, Ph.D., subaward principal investigator, is an expert in imaging science, and has published articles in the fields of pain, dermatology and vector-borne diseases. Working closely with collaborators at the University of Minnesota, she designs and conducts the imaging processing, data analysis, report preparation, manuscript preparation and presentation at scientific meetings.

Ericson and her colleagues recently published research demonstrating that *Bartonella* spp. are abundant in skin lesions resembling striae distensae. These striae distensae-like lesions, coincidental with sudden onset of neuropsychiatric symptoms, indicate testing for suspected *Bartonella* spp. infection. *Bartonella* spp. are aerobic, gram-negative, vector-borne bacteria that can infect many different cell types, including endothelial cells and erythrocytes of numerous mammalian hosts, causing prolonged infections in humans and animals with diverse disease manifestations. More than 38 spp. or subspecies have been described, 18



of which have been associated with an expanding spectrum of human diseases.

*Bartonella quintana* has been detected in 4,000-year-old human remains, representing the oldest evidence of this infection to human beings. Importantly, the presence of striae-like skin track lesions in patients presenting with neuropsychiatric symptoms indicate testing for suspected *Bartonella* spp. infection.

In another study published by Ericson and her colleagues, "*Bartonella henselae* Detected in Malignant Melanoma, a Preliminary Study," the authors found the need for future investigations to determine the extent to which *Bartonella* spp. are a component of the melanoma pathobiome.

# Regenerative Medicine and Chronic Disease



TLI has developed a program in regenerative medicine, including multiple cellular therapy partners, investment banking experts and clinical leaders in the field. Regenerative medicine is the process of creating living, functional tissues to repair or replace tissue or organ function lost due to age, disease, damage or congenital defects.

This project explores new capabilities to prove causality of chronic infection, open the door to new treatment plans and public health programs and reduce the number and severity of chronic diseases globally.

If only 5% of chronic diseases are attributable to infectious agents, in the United States alone, approximately 4.5 million of the 90 million people living with chronic disease might receive benefit from these new plans and programs.



# EQIP Project for Residency Programs



TLI works with the Association of Program Directors in Surgery (APDS) to help improve surgical training programs and to allow for data-driven innovation in surgical education through the Educational Quality Improvement Program (EQIP) program, a continuous learning quality improvement program designed to be collaborative and collegial. APDS was founded in 1977 to provide a forum for the exchange of information and for discussion on a wide range of subjects related to post-graduate surgical education. In 2020 APDS, and the Research Fund made a significant commitment of time and resources to an innovative program called EQIP.

The EQIP registry is dedicated to ensuring the confidentiality of all data. TLI has partnered with the Association of Program Directors in Surgery to develop this registry. General surgery residency programs participating in EQIP will collect data points for each of their graduating residents into a user-friendly data interface for a six-

year period that describes the residents' experience as medical students, the surgical training program and performance of the individual residents.

The EQIP project has identified three key objectives:

1. Permit each surgical residency program to use selected data elements to track predictive value for success of individual residents in the ABS CE and QE exams
2. Allow use of objective factors relating to ABS Exam performance and subsequent successful performance of former residents during the early years of practice to identify components of a successful residency training program, and
3. Eventually include patient outcomes data—potentially to enable the harvest, acquisition and collection of patient outcomes data in surgery that is linked to resident training, and to demonstrate the actual, data-supported value of surgery residency training programs.



## Midwest Business Group on Health (MBGH)

TLI and MBGH are committed to building a collaborative effort to aid partners and members in the Midwest business health community and improving mental health outcomes and solutions in the post-COVID-19 world.

As the pandemic continues with no end in sight, we believe strongly in helping all members of our community develop greater mental health resources and improving access and outcomes. Coordinated, collaborative, asset-based community efforts are the key to strengthening community bonds and mobilizing the community to build next-generation social capital.

Community leaders from all sectors will come together to share stories, ideas and innovation—moving from dialogue

to vision to action—to create a larger learning community and align multiple fronts so that the collective efforts have greater synergy for improved mental health. This multi-pronged approach to community mental health, wellness and resilience is designed through multi-sector engagement leading to shared vision and collaborative action.

As the project progresses, more organizations will align in partnership with this platform to expand the learning community, bringing experience and innovation to strengthen social capital. This process provides communities with the tools they need to grow, flourish and develop connections with other communities to form the bonds of resilience to mental health challenges.



## **Bill Oldham | Chairman and President**

Bill Oldham is the founding Principal and Chairman/President of TLI. He brings more than 25 years as an entrepreneur, investor, executive and consultant supporting growth industries and high value clients across health, technology, financial and energy industries. He supports several startups with consulting and board-level roles to drive business growth, develop strategy and manage finance. Bill's major areas of expertise are integrating cost-effective and innovative technology in the healthcare industry, healthcare monitoring and data collection, and telemedicine tools and services. Bill earned an MBA from Manchester Business School.



## **Fred Cecere | Medical Director and Senior Fellow**

Fred Cecere, Medical Director, is a physician with more than 40 years of experience with interests in bio-defense planning, disease management, performance metrics, process redesign and outcomes measurement in both commercial and federal healthcare settings. Fred served as the Chief Medical Officer of Evolvent, and as Chief Medical Officer for Expertech Solutions, where he was a major force in the development of the Air Force Medical System (AFMS) Futures Group. Fred founded CFR Enterprises and had 26 years of military experience as Special Staff officer to the Surgeon General (TSG)/USAMEDCOM, the Deputy Surgeon General and the Assistant Surgeon General for Health Services, Financial Policy and Readiness Operations. Fred received a Bachelor of Arts from Boston University College of Liberal Arts and a Doctorate of Medicine from the Boston University School of Medicine.



## **Shawn Murphy | Board Vice President**

Shawn Murphy, Board Vice President, is an experienced leader and certified Project Management Professional with an impressive history of driving organizational growth in information technology and services industries. Passionate about improving the human condition, she implements innovative ideas to improve patient care and education within communities. With her leadership and guidance, she has managed health information technology and financial management programs for the Department of Defense (DoD), the Department of Veterans Affairs (VA), National Institutes of Health (NIH) and commercial enterprises. Shawn's work in commercial satellite communications, telecommunications, clinical support systems, medical logistics and financial industries is testimony to her ability to leverage new, advanced technologies. A consummate project management specialist, she uses best practices to implement enterprise-level business process transformation, manage inter-agency systems interoperability, cybersecurity and software integration programs.



## *Alisha Moopen | Board Member*

Alisha Moopen, Deputy Managing Director, Aster DM Healthcare, is responsible for overseeing the strategic direction and development of the company, and notably spearheading the expansion of the group into new markets.

As a trustee of Aster DM Foundation, Alisha's philanthropy and involvement in social welfare through Aster Volunteers program bridges the gap between people who would like to help with those in need. As a Young Global Leader elected by World Economic Forum in 2018, Alisha has a presence on the world leadership stage. Her other international accolades include 2018's Top 100 World's Greatest Leaders in Asia and GCC, one of Forbes Middle East magazine's Top Next Generation Indian Leaders in 2018 and in 2021, inclusion in the list of Women of Influence in the Arab World by CEO Middle East magazine.

She is a Chartered Accountant from the Institute of Chartered Accountants of Scotland (ICAS) and worked with Ernst & Young. She graduated from the University of Michigan with distinction in Finance & Accounting and holds a degree in Global Leadership & Public Policy Change from Harvard University.



## *Reed Hartley | Executive Director*

Reed Hartley, Executive Director, is an experienced nonprofit leader with repeated success growing both domestic and international organizations. Reed brings an integrated approach to strategic planning, effective communications and fundraising strategies, while building trusting partnerships with a variety of stakeholder groups across four continents. He plays a pivotal role in leading TLI to drive better health outcomes for select patient communities worldwide. TLI projects span research and measurement, analytics, technology, community collaboratives, medical registries and an Innovation Hub. Prior to joining TLI, Reed served as Executive Director at ALSAC, St. Jude Children's Research Hospital and Free Wheelchair Mission. Previously, he was Vice President of Development at Opportunity International, bringing economic empowerment to women entrepreneurs in Africa, Asia and South America. Reed is a graduate of the University of Virginia.



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# TLI TIMELINE 2011-2021



2011

TLI advances efforts to build a stronger federal health system for federal health delivery organizations, promoting health—not simply healthcare—to better serve patients across the globe.



2012

Reimagines the future of federal health care for the U.S. Public Health Service, CMS, HRSA, U.S. Department of Defense and Veterans Administration to propel the Federal Health Futures Initiative, with partners: Harvard University, Stanford University, the Institute for Healthcare Improvement, Duke University and RAND.



2013

Leads the design of the Center for Disaster Response and Humanitarian assistance at the National Defense 2013 University to strengthen the federal response.



2014

Supports care redesign for Air Force Medicine's Team Strategies and Tools to Enhance Performance and Patient Safety (Team STEPPS) in over 75 Air Force hospitals sponsored by Command Surgeon HQ Air Combat Command to improve patient care.

Kicks off long term work with chronic infection and chronic disease expert Dr. Robert Mozayeni, investing \$500,000 in cutting edge imaging analysis equipment.

Guides U.S. Air Force Medical Program to implement Team STEPPS to improve the performance of U.S. service men and women.



2015

Facilitates BADER's efforts to strengthen federal research into the prosthetic field to better serve over 2,000,000 patients, led by the University of Delaware with participation from Harvard University, Dartmouth College, University of Delaware, Mayo Clinic, and other leading academic institutions.



2016

Manages symposium and produces peer-reviewed journal publication in AMUS Journal of more than 20 leading research papers in the limb loss field.

Creates the AMSUS Executive Advisory Board for the Federal Health Society to shape their direction for the future.

Acquires the Samueli Institute, an Alexandria, Virginia-based research organization supporting federal health and wellness programs founded by Henry and Susan Samueli of Newport Beach, California, to increase its impact in Federal healthcare.



2017

Joins the Medical Technology Enterprise Consortium (MTEC) to support federal health initiatives. MTEC partnerships have included work with Amazon, Logistics Management Institute, IBM, University of Nebraska, Mayo Clinic and Arizona State University.

Formalizes Program Management Office, and expands Advisory Board and Fellows Program.

Expands work acquired from Samueli Institute in human performance and readiness research and the methodology of care redesign called Optimal Healing Environment.

Partners with Dartmouth College's Thayer School of Engineering to bring its Artificial Joint Replacement Failure Registry to the Department of Veterans Affairs.



# 2018

Collaborates with Los Angeles County to create a \$5 million consortium to build community resilience in the face of the opioid epidemic in collaboration with our Fellow from George Washington University. Associated partners include Los Angeles County public sector departments in Public Health and Mental Health, as well as UCLA, USC, and other local community organizations.

Supports health and wellness research for the Henry M. Jackson Foundation and the Uniformed Services University for better nutrition and improved behaviora health.

Secures care redesign project by Fort Belvoir Community Hospital to build a new operating model for primary care around patient-centered medical home research.

Along with the Mayo Clinic, contracts with NIH Limb Loss and Preservation Registry to build the first national data repository to serve over 2,000,000 patients living with catastrophic limb loss.

Earns GSA 00Corp Schedule to provide professional consultancy services to federal government clients.



# 2019

Launches Innovation Hub in collaboration with our Fellow from American University to evaluate emerging technologies that can improve health and economically empower underserved populations.

Develops a new program in regenerative medicine, including multiple cellular therapy partners to reduce the number and severity of chronic diseases globally.

Builds an economic empowerment program for Historically Black Colleges and Universities (HBCUs) and their students.

Creates Community Collaborative model for building community resilience to societal problems.

Contracts with Veteran's Health Affairs Integrated Healthcare Transformation (VHA IHT) as a part of the Titan-Alpha team and Air Force Strategic Transformation Support (AFSTS) contract as a part of the KPMG team.



# 2020

Establishes Service Disabled Veteran Owned Small Business (SDVOSB) Joint Venture with Bacik Group to develop greater health solutions across the Veteran community.

Partners with the University of Minnesota and Fellow Dr. Bob Mozayeni to further research Bartonella and Borrelia and the impact of chronic infection to chronic disease.

Meets with the Limb Loss and Preservation Registry External Collaborative Panel (ECP) to finalize the registry governance, system security design, data dictionary and architecture.

Chosen to support the Million Veteran Program (MVP), a national research program to study how genes, lifestyle and military exposures affect health and illness.

Partners with The Association of Program Directors in Surgery (APDS) to help improve surgical training programs and to allow for data-driven innovation in surgical education.

T Lab, under the guidance of TLI Fellow Dr. Bob Mozayeni, partners in chronic infection research through image analysis in cooperation with the University of Minnesota.



# 2021

Partners with Midwest Business Group on Health to improve mental health outcomes for employees struggling with the many stressors of the COVID-19 pandemic.

## MISSION

TLI drives innovative thinking and action on global issues relating to health to foster transformative change and improve the health and well-being of patient communities across the world.

## VISION

TLI envisions a world with greater health results through better data and innovation, where even those patients and families facing the most difficult conditions find hope for better care.

## VALUES

Excellence | Integrity Partnership  
Impartiality | Intellectual  
Curiosity & Innovation



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