specifically downregulated in females with aging included lysosome, inflammation and phagolysosome. Consistently, our data shows that aged female, but not male macrophages, display decreased phagocytic efficiency. Our results support the notion that there are differences in aging trajectories in female vs. male mice.

DYNAMICS OF HUMAN MUCOSAL-ASSOCIATED INVARIANT T CELL REPERTOIRES ACROSS THE HUMAN LIFE SPAN

Liyen Loh,[1] Martha Lappas,[2] Jane Crowe,[3]
Paul G. Thomas,[4] Sidonia Eckle,[2] Dale I. Godfrey,[2]
Katherine Kedzierska,[2] and Jeremy C. Crawford[4],
*1. Department of Microbiology and Immunology, The University of Melbourne at the Peter Doherty Institute or Infection and Immunity, Melbourne, Australia,
2. Department of Microbiology and Immunology, University of Melbourne, at the Peter Doherty Institute for Infection and Immunity, Melbourne, Victoria, Australia,
3. Deepdene Surgery, Deepdene, Victoria, Australia,
4. Department of Immunology, St Jude Children's Research Hospital, Memphis, Tennessee, United States*

Mucosal-associated invariant T (MAIT) cells are innate-like lymphocytes and are important for immune responses against bacterial and viral infections. While MAIT cells are known to undergo marked numerical changes with age in humans, our understanding of how these cells alter during these different phases across the human lifespan is largely unknown. Here we investigated MAIT cells from umbilical cord, children, young-adults and elderly. Functional analyses across 18-90 y/o adults showed that their MR1-dependent polyfunctionality was robust throughout old age. Strikingly, elderly MAIT cells displayed upregulated basal inflammatory cytokines, which were reduced to the level of young-adult MAIT cells in the absence of the aged environment. T cell receptor $\alpha\beta$ analyses of MAIT cells across the human lifespan showed narrowing with age and large clonal TCR$\alpha\beta$ expansions in elderly. These data suggest that MAIT cells in the elderly display remarkable plasticity, highlighting MAIT cells as key players in aged immune responses.

A LONGEVITY PROMOTING FACTOR THAT SUPPRESSES IMMUNITY AND HEALTHSPAN

Arjumand Ghazi,[1] Francis Amrit,[1] Nikki Naim,[1]
Ramesh Ratnappan,[1] and Julia Loose,[1] Guoqiang Wang,[2]
Monica Driscoll,[2] and Judith Yanowitz[1], *1. University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania, United States, 2. Rutgers University, Piscataway, New Jersey, United States*

A positive correlation exists between stress resistance and longevity, but emerging evidence suggests that lifespan and stress endurance are physiologically distinct. A major challenge in aging biology has been identifying factors that play distinct roles in these closely coupled processes because genes that promote longevity often enhance stress resistance. Here, we demonstrate that TCER-1, the Caenorhabditis elegans homolog of the human transcription elongation and splicing factor, TCERG1, has discrete and opposite effects on lifespan and stress resistance. We previously identified tcer-1 as a gene that promotes longevity in germline-less C. elegans and reproductive fitness in wild-type animals. Surprisingly,

tcer-1 mutants exhibited exceptional resistance against multiple biotic and abiotic stressors, including infection by the human opportunistic pathogen Pseudomonas aeruginosa. Conversely, TCER-1 overexpression increased susceptibility to infection. TCER-1 acted cell non-autonomously to both enhance longevity and repress immunity. Interestingly, TCER-1 inhibited immunity only during the fertile stages of life and not in post-reproductive adults. Elevating its levels ameliorated the fertility loss that follows infection, suggesting that TCER-1 may repress immunity to augment fecundity. Mechanistically, TCER-1 acts through the inhibition of the conserved kinase, PMK-1, as well as through repression of PMK-1-independent, novel antibacterial factors critical for innate immunity. Overall, our data establish key roles for TCER-1 in coordinating immunity, longevity and fertility, and reveal the molecular mechanisms that distinguish length of life from functional aspects of aging.

SESSION 3545 (SYMPOSIUM)

IMPLEMENTING THE 4MS IN PRIMARY CARE: BUILDING AN AGE-FRIENDLY HEALTH SYSTEM

Chair: Ellen Flaherty, *Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire, United States*
Discussant: Terry Fulmer, *The John A. Hartford Foundation, New York, New York, United States*

The Age Friendly Health Systems initiative is a culture change movement funded by the John A. Hartford Foundation in collaboration with the Institute for Health Care Improvement. Transforming clinical training environments into integrated geriatrics and primary care systems to become Age-Friendly Health Systems must incorporate the principles of value-based care and alternative-payment models. This symposium will discuss how the implementation of the Geriatric Interprofessional Team Transformation in Primary Care (GITT-PC) model and the Reducing Avoidable Facility Transfer Model (RAFT) in primary care will improve patient outcomes focused on the 4M's of the Age Friendly Health System. The success of the GITT-PC model focuses on 4 Medicare reimbursable services including the Annual Wellness Visit, Transitional Care Management, Chronic Care Management and Advance Care Planning. The RAFT model focuses on What Matters Most to residents of long term care facilities and reduces ED visits and hospital transfers through elicitation of goals of care and 24 hour virtual support from an interprofessional geriatric team.

REDUCING AVOIDABLE FACILITY TRANSFERS: THE RAFT MODEL

Daniel Stadler[1], *1. Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire, United States*

Reducing Avoidable Facility Transfers (RAFT) is a Dartmouth-developed program that identifies and honors "what matters most" to patients residing in skilled nursing facilities in a value-based, sustainable way. RAFT aims to reduce avoidable facility transfers of older adults from long-term care and post-acute care facilities to emergency departments (ED). Key components of RAFT presently include (1) systematically eliciting goals of care for all

skilled nursing facility residents, (2) translating these goals into orders using the Physician Orders for Life-Sustaining Treatment form, (3) documenting patient wishes about hospitalization, and (4) ensuring that these wishes inform decision-making during acute crises. Data from a pilot program, begun in 2016 with three rural skilled nursing facilities in collaboration with the Dartmouth-Hitchcock Medical Center geriatric practice, showed a 35% reduction in monthly ED transfers, a 30.5% reduction in monthly hospitalizations, and a 50.7% reduction in monthly ED and hospitalization-related charges.

THE 4MS IN PRIMARY CARE: THE GERIATRIC INTERPROFESSIONAL TEAM TRANSFORMATION IN PRIMARY CARE (GITT-PC) MODEL

Daniel Moran[1], *1. Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire, United States*

GITT-PC is a Dartmouth GWEP developed program that builds on lessons learned from the original GITT program funded by the John A. Hartford Foundation in the 1990s. GITT-PC improves delivery of healthcare to older adults in primary care by training healthcare professionals in team functioning, rapid cycle QI, and evidence based geriatric practice. The program capitalizes on the role of nursing and other healthcare disciplines. To maximize sustainability, it focuses on Medicare-reimbursable visits, including: the Annual Wellness Visit (AWV), Chronic Care Management (CCM), Advance Care Planning (ACP), and Transitional Care Management (TCM). The model's standardized approach to implementation begins with practice assessments and two trainings. Practices participate in a data-driven, virtual learning collaborative with monthly data collection and learning sessions. Since 2015, GITT-PC has been implemented in 14 sites in northern New England, 10 sites in upstate New York, and nationally through five other GWEP awardees across the country.

DEVELOPING A COMMUNITY-BASED COMPREHENSIVE FALLS PREVENTION PROGRAM IN COLLABORATION WITH PRIMARY CARE

Dawna Pidgeon[1], *1. Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire, United States*

Reducing falls in older adults requires a comprehensive screening program, a systems approach to refer those at risk and an evidence based community falls prevention programs. The Dartmouth Centers for Healthy & Aging has been the recipient of 2 Association of Community Living (ACL) Falls Prevention grants. This has enabled the development of a robust program for falls screening both in primary care and through community based balance screening events called "Balance Days". At risk individuals receive coaching, based on the principles of motivational interviewing, focusing on enrolling in either "Matter of Balance" or "Tai Chi Quan: Moving for Better Balance". Through the ACL grant we have built significant capacity across New England for these programs. This talk will focus on the "secret sauce" of implementing a robust community based falls prevention program in partnership with primary care.

SESSION 3550 (SYMPOSIUM)

LESSONS LEARNED FROM NURSING HOME CIVIL MONETARY PENALTY PROJECTS

Chair: Diana L. Sturdevant, *University of Oklahoma, Fran and Earl Ziegler College of Nursing, Oklahoma City, Oklahoma, United States*
Discussant: Kathleen C. Buckwalter, *University of Oklahoma, Fran and Earl Ziegler College of Nursing, Oklahoma City, Oklahoma, United States*

Nursing homes must comply with numerous federal/state regulations to receive Medicare and Medicaid funding. Failure to comply with these regulations can result in deficiency citations, and depending on the severity of the deficiency, a resulting Civil Monetary Penalty (CMP). Through the Centers for Medicare and Medicaid Services (CMS) Civil Monetary Penalty Reinvestment Program, CMP funds are reinvested to support activities that benefit nursing home residents and that protect or improve their quality of life or quality of care. This symposium presents some of the unique challenges, successes, failures, and surprise findings from CMP-funded nursing home quality improvement projects in two, predominantly rural Midwestern states: Oklahoma and Kansas. Dr. Williams presents findings of a pilot-study testing an adaptation of a successful family caregiver telehealth support intervention in the nursing home setting and implications for future research. Dr. Sturdevant shares successes, challenges, and unanticipated results from the "It's Not OK to Fall" project, a comprehensive, 3 year fall prevention project implemented in Oklahoma nursing homes. Lastly, Ms. Round's paper describes the implementation and findings of a Long-term Care Leadership Academy aimed at improving leadership and team building skills of three levels of nursing home staff, including Administrators/Directors' of Nursing, RN/LPN charge nurses and certified nursing assistants. Discussant, Dr. Kathleen Buckwalter Ph.D., FAAN, RN, will discuss how principles of nursing home culture change provides a common framework for these projects and conclude by offering suggestions on how promotion of these principles might improve the quality of care provided by nursing homes.

IT'S NOT OK TO FALL: CHALLENGES AND SUCCESSES OF A NURSING HOME FALL PREVENTION PROJECT

Diana L. Sturdevant,[1] Barbara Carlson,[1] and Teri Round[2], *1. University of Oklahoma, Fran and Earl Ziegler College of Nursing, Oklahoma City, Oklahoma, United States, 2. University of Oklahoma, Fran and Earl Ziegler College of Nursing, Yukon, Oklahoma, United States*

This study pilot-tested a 12-week, comprehensive, resident-centered fall prevention program aimed to lower falls in nursing home residents in Oklahoma. Staff from 52 nursing homes received a training on evidence-based fall prevention strategies and fall-risk assessment. Content was present using motivational scenarios that encouraged situational problems solving. Rate of falls, including falls with major injury) were collected for 3 months before (roll-in), during (treatment), and following (sustainability). Nursing homes completing the project (n=29) showed significant