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May 16th, 1:45 PM

Poster Session Program: 2017 UMass Center for Clinical and Translational Science Research Retreat

UMCCTS Research Retreat

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**CENTER FOR CLINICAL AND
TRANSLATIONAL SCIENCE**

7TH ANNUAL RESEARCH RETREAT

POSTER SESSION

1:45 – 3:00 pm

Faculty Conference Room and Medical School Lobby
University of Massachusetts Medical School



- 1. InVitro-Q: A High-throughput Biosensor Used to Evaluate the Mechanism of Phagocytosis of Macrophages Using Different Particles**
Marynawal Abdou and Abiche Dewilde, PhD
InVitroMetrix Corporation, Lowell MA
- 2. Frequent Cannabis Users Have Reduced Odds for Non Alcoholic Fatty Liver Disease**
Adeyinka C. Adejumo, MD, MS^{1,2}, Nnaemeka Onyeakusi, MD, MPH³,
Samson Alliu, MD, MPH⁴, Ogooluwa Ojelabi, MS¹
¹University of Massachusetts Medical School; ²North Shore Medical
Center Salem Hospital, Salem, MA; ³Bronx-Lebanon Hospital Center,
Bronx NY; ⁴Maimonides Medical Center, Brooklyn NY
- 3. The Utilization of Video Capsule Endoscopy in Patients with Peutz–
Jeghers Syndrome**
Yasir Al-Azzawi, MD¹, Erik Holzwanger, MD¹, David Cave, MD, PhD²
Department of Medicine¹, Division of Gastroenterology², UMass
Memorial Medical Center
- 4. Does Pre-Stroke Statin Use Influence Survival and
Institutionalization after Hospital Discharge?**
M. Alcusky, PharmD, MS¹; AL Hume, PharmD²; KL Lapane, PhD¹,
¹University of Massachusetts Medical School; ²University of Rhode
Island College of Pharmacy, Kingston, RI
- 5. The "Double Loaded" LV: High Prevalence of Hypertensive LVH
Preceding the Development of Severe Aortic Stenosis**
Summer Aldrugh¹, Neha Varma², Colleen Harrington³, Matthew Parker³,
Nikolaos Kakouros³, Gerard P. Aurigemma³
¹Department of Medicine, ²Division of Epidemiology, Department of
Quantitative Health Sciences, ³Division of Cardiovascular Medicine,
University of Massachusetts Medical School
- 6. Predictors of Cardiac Mortality in the CCU: A Retrospective Study in
a Tertiary Center**
Summer Aldrugh¹, Aditya Vaze¹, Adedotun Anthony Ogunsua², Gloria
Shan¹, Amrit Vinod³, Modupeola Diyaolu³, Craig Smith²
¹Department of Medicine, ²Division of Cardiovascular Medicine, ³School
of Medicine, University of Massachusetts Medical School
- 7. Association between Psychosocial Factors, Quality of Life and
Atrial Fibrillation**
Summer Aldrugh¹, Mayank Sardana², Darleen M. Lessard³, Jane S.
Saczynski³, David D. McManus²
¹Department of Medicine, ²Division of Cardiovascular Medicine, ³Division
of Epidemiology, Department of Quantitative Health Sciences, University
of Massachusetts Medical School
- 8. An Innovative Nurse-Managed Transition Clinic for Adolescents and
Young Adults with Spina Bifida: A Pilot Study**
Mohammad Alkawaldeh, PhD, MSN, RN^{1,2}; Rebecca Sherlock, MSN,
RN²; Estrada Carlos, PhD, MD²; Erika Alkhalwaldeh, LPN³
¹College of Nursing, University of Massachusetts Amherst; ²Boston
Children's Hospital; ³Massachusetts General Hospital
- 9. The BCH-SBPR: A Multi-disciplinary Registry Collecting
Longitudinal Data on Patients with Spina Bifida**
Mohammad Alkawaldeh, PhD, MSN, RN^{1,2}; Rebecca Sherlock, MSN,
RN²; Estrada Carlos, PhD, MD²; Erika Alkhalwaldeh, LPN³
¹College of Nursing, University of Massachusetts Amherst; ²Boston
Children's Hospital; ³Massachusetts General Hospital
- 10. The Effectiveness of Tablet-based application for Older Adults with
Diabetes Mellitus Type II: A Pilot Study**
Mohammad Alkawaldeh, PhD, MS, RN¹; Cynthia Jacelon, PhD, RN,
FGSA, FAAN¹; Jeungok Choi, PhD¹; Jenna Marquard, PhD², John
Ridgway, PhD³
¹College of Nursing, ²College of Engineering, University of
Massachusetts Amherst; ³Massachusetts College of Art and Design,
Boston, MA

11. Broad Repertoire of T Cell Autoreactivity Directly from Islets of Donors with Type 1 Diabetes (T1D)

Jenny Aurielle B. Babon¹, Megan E. DeNicola¹, David M. Blodgett¹, Inne Crèvecoeur², Thomas S. Buttrick³, René Maehr⁴, Rita Bottino^{5,6}, Ali Najj⁷, John Kaddis⁸, Wassim Elyaman³, Eddie A. James⁹, Rachana Haliyur¹⁰, Marcela Brissova¹⁰, Lut Overbergh², Chantal Mathieu², Thomas Delong¹¹, Kathryn Haskins¹¹, Alberto Pugliese¹², Martha Campbell-Thompson¹³, Clayton Mathews¹³, Mark A. Atkinson¹³, Alvin C. Powers^{10,14,15}, David M. Harlan¹, Sally C. Kent¹

¹Division of Diabetes, Diabetes Center of Excellence, Department of Medicine, University of Massachusetts Medical School; ²Laboratory for Clinical and Experimental Endocrinology, Department of Clinical and Experimental Medicine, KU Leuven, Leuven, Belgium; ³Ann Romney Center for Neurologic Diseases, Brigham and Women's Hospital and Harvard Medical School, Boston, MA; ⁴Program in Molecular Medicine, Diabetes Center of Excellence, University of Massachusetts Medical School; ⁵Institute of Cellular Therapeutics, Allegheny-Singer Research Institute, Pittsburgh, PA; ⁶Department of Biological Sciences, Carnegie Mellon University, Pittsburgh, PA; ⁷Institute for Diabetes, Obesity, and Metabolism, University of Pennsylvania School of Medicine, Philadelphia, PA; ⁸Department of Information Sciences, Beckman Research Institute, City of Hope, Duarte, CA; ⁹Benaroya Research Institute at Virginia Mason, Seattle, WA; ¹⁰Division of Diabetes, Endocrinology and Metabolism, Department of Medicine, Vanderbilt University Medical Center, Nashville, TN; ¹¹Department of Immunology and Microbiology, University of Colorado School of Medicine, Denver, Anschutz Medical Campus, Aurora, CO; ¹²Diabetes Research Institute, University of Miami, Miami, FL; ¹³Departments of Pathology, Immunology, and Laboratory Medicine, University of Florida, Gainesville, FL; ¹⁴Department of Molecular Physiology and Biophysics, Vanderbilt University, Nashville, TN; ¹⁵VA Tennessee Valley Healthcare System, Nashville, TN

12. Geographic Variation in Hospital Costs Associated with Isolated Coronary Artery Bypass Grafting

Ricardo Bello, MD¹, Wei Huang, PhD¹, Jennifer Walker, MD¹, William Hoffman, MD², Christina Vassileva, MD¹

¹Department of Surgery, ²Department of Anesthesiology, University of Massachusetts Medical School

13. Trends in Cause of Death among Puerto Rican and United States Multiple Myeloma Patients

Castañeda-Avila MA, MS¹; Ortiz-Ortiz KJ, DrPH²; Torres-Cintrón CR, MPH²; Epstein MM, ScD³

¹Graduate School of Biomedical Sciences, University of Massachusetts Medical School; ²Puerto Rico Central Cancer Registry, University of

Puerto Rico Comprehensive Cancer Center; ³Meyers Primary Care Institute and the Department of Medicine, University of Massachusetts Medical School

14. The Effects of Early Adoption of Academic Electronic Health Records System (EHRS) on Patient Outcome in Nursing

Joohyun Chung, PhD, MStat, RN¹, Donghui Yan, PhD², Gray Davis, PhD²

¹Adult Department, College of Nursing, ²Department of Mathematics, College of Art and Sciences, University of Massachusetts Dartmouth

15. Gastrointestinal Perforations: Examining the Overlooked Unintentional Consequences of Our Nation's Epidemic of Antibiotic Exposure

Vijaya T. Daniel MD, MPH^{1,2}, Stacy B. Sanders MD, MS, MHA^{1,2}, Didem Ayturk MS², Beth A. McCormick PhD³, Heena P. Santry MD, MS^{2,4}

¹Surgical Research Scholars, Department of Surgery, ²Department of Surgery, ³Center for Microbiome Research, ⁴Department of Quantitative Health Sciences, University of Massachusetts Medical School

16. Impact of Body Mass Index and Weight Change on Risk of Recurrence in Patients Treated for Endometrial Adenocarcinoma

Geneva A. DeGregorio, BA, Katherine G. Leung, MPH, Leslie S. Bradford, MD

Department of Obstetrics and Gynecology, University of Massachusetts Medical School

17. C1QBP Inhibits DUX4-Dependent Gene Activation and can be Targeted with 4MU

Alec M. DeSimone^{1,2}, Genila Bibat³, Kathryn Wagner³, Guido Stadler⁴, Woodring E. Wright⁴, John Leszyk⁵, and Charles P. Emerson, Jr.^{1,2}

¹Wellstone Center for FSHD Research; ²Department of Neurology, University Of Massachusetts Medical School; ³Center for Genetic Muscle Disorders, Kennedy Krieger Institute, Johns Hopkins School of Medicine, Baltimore, MD; ⁴Department of Cell Biology, University of Texas Southwestern Medical Center, Dallas TX; ⁵Proteomics and Mass Spectrometry, University Of Massachusetts Medical School

18. Sulforaphane Treatment of Children with Autism Spectrum Disorder – A Progress Report

Eileen Diggins, BA, Andrew Zimmerman, MD, Kanwaljit Singh, MD, Susan Connors, MD

Division of Neurology, Department of Pediatrics, University of Massachusetts Medical School

19. Altered Baroreflex-Mediated Cardiovascular Responses to Acute Hypotension in Heart Failure Patients Compared to Healthy Adults

Rachel C. Drew, PhD^{1,2}, Chelsea N. Lindblad, MS³, Soraya M. Samii, MD, PhD², Cheryl A. Blaha, RN², Michael J. White, PhD⁴, Lawrence I. Sinoway, MD²

¹Department of Exercise and Health Sciences, University of Massachusetts Boston; ²Penn State Heart and Vascular Institute, Penn State College of Medicine, Hershey, PA; ³Penn State College of Medicine, Hershey, PA; ⁴School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham, Birmingham, UK

20. Measuring Changes in Brain Metabolite Levels Using Live-animal Magnetic Resonance Spectroscopy and Offline LC-MS Metabolomics in a Binge-ethanol Murine Model

Michelle L Dubuke^{1,2}, Guillaume L Poirer³, Laurelee Payne³, Arlene Lim⁴, Pranoti Mandrekar⁴, Constance M Moore³, Jean A King³, Scott A. Shaffer^{1,2}

¹Department of Biochemistry and Molecular Pharmacology, ²Proteomics and Mass Spectrometry Facility, ³Center for Comparative Neuroimaging, ⁴Department of Medicine, University of Massachusetts Medical School

21. Effects of Positive Regard and Induced Social Stress on Cognitive Function: A Psychophysiological Perspective

Sherief Y. Eldeeb¹, Kate Romero², Kymberlee O'Brien, PhD²

¹Department of Psychology, Clark University; ²Department of Social Science and Policy, Worcester Polytechnic Institute

22. Survivors of an Acute Coronary Syndrome with Lower Patient Activation Are More Likely to Experience Declines in Health-Related Quality of Life

Nathaniel A. Erskine, BA¹, Barbara Gandek, PhD^{1,2}, Molly E. Waring, PhD¹, Rebecca L. Kinney, MPH¹, Darleen M. Lessard MS¹, Randolph S. Devereaux PhD, MSPH³, Stavroula A. Chrysanthopoulou PhD¹, Catarina I. Kiefe, PhD, MD¹, Robert J. Goldberg, PhD¹

¹Department of Quantitative Health Sciences, University of Massachusetts Medical School; ²John Ware Research Group, Watertown, MA; ³Mercer University College of Medicine, Macon, GA

23. Functional vs. Traditional Resistance Training: Affective Response and Exercise Enjoyment in College-Age Females

Jamie Faro, MS¹, Jessica Whiteley, PhD¹, Laura L. Hayman, PhD²

¹Department of Exercise and Health Sciences, ²Department of Nursing, University of Massachusetts Boston

24. Identification and Characterization of Human Monoclonal Antibodies for Immunoprophylaxis against Enterotoxigenic Escherichia coli

Serena Giuntini, Matteo Stoppato, Maja Sedic, Monir Ejemel, Danielle Wisheart, Mark S. Klemper, Yang Wang
MassBiologics of UMMS, Boston, MA

25. Understanding the Structure of Amyloid Fibrils using Atomic Force Microscopy (AFM) to Design New Therapeutic Strategies for Neurodegenerative Diseases

Sumeyra Gokalp, MS and Michelle Foster, PhD
Department of Chemistry, University of Massachusetts Boston

26. Principles of Augmentative and Alternative Communication System Design in the ICU Setting

Miriam A. Goldberg¹, Leigh R. Hochberg², Dawn Carpenter³, Johnny Isenberger³, Stephen O. Heard⁴, J. Matthias Walz⁴

¹Graduate School of Biomedical Sciences, University of Massachusetts Medical School; ²Department of Neurology, Massachusetts General Hospital, Boston, MA and Department of Engineering, Brown University; ³UMass Graduate School of Nursing; ⁴Department of Anesthesiology & Perioperative Medicine, University of Massachusetts Medical School

27. Testing a Novel Manual Communication System for Mechanically Ventilated ICU Patients

Miriam A. Goldberg¹, Leigh R. Hochberg², Dawn Carpenter³, Johnny Isenberger³, Stephen O. Heard⁴, J. Matthias Walz⁴

¹Graduate School of Biomedical Sciences, University of Massachusetts Medical School; ²Department of Neurology, Massachusetts General Hospital, Boston, MA and Department of Engineering, Brown University; ³UMass Graduate School of Nursing; ⁴Department of Anesthesiology & Perioperative Medicine, University of Massachusetts Medical School

28. Pericardial Fat Thickness Increases with Greater Burden of Adverse Metabolic Factors Among Adults with Normal-Range Body Mass Index: The Framingham Heart Study

Philimon N. Gona, PhD¹, Jane J. Lee, MD², Noriko Oyama-Manabe, MD, PhD³, Carol J. Salton, BA⁴, Warren J. Manning, MD⁴, Michael L. Chuang, MD⁴, Christopher J. O'Donnell, MD, MPH⁵

¹University of Massachusetts Boston; ²Boston Children's Hospital, Boston, MA; ³University of Hokkaido, Sapporo, Japan; ⁴Beth Israel Deaconess Medical Center, Boston, MA; ⁵VA Boston Healthcare System, Boston, MA

29. Teen Distracted Reality an Interactive Virtual Education (D.R.I.V.E.): Experience and Impact on Teenage Drivers

Jonathan Green, MD¹, Gregory Keefe, BS², Rachelle N. Damle, MD, MS¹, Pradeep P. Nazarey, MD¹, Jeremy T. Aidlen, MD¹, Mariann Manno, MD, EdM³, Michael P. Hirsh, MD¹

¹Division of Pediatric Surgery, Department of General Surgery;

²University of Massachusetts Medical School; ³Division of Pediatric Emergency Medicine, Department of Pediatrics, University of Massachusetts Medical School

30. Evolution of the Alpha-1 Antitrypsin Muscle Gene Therapy: Translation from Clinical Trial to Benchtop and Back Again

Alisha M. Gruntman DVM, PhD^{1,2,5}, Gwladys Gernoux PhD¹, Gensheng Wang PhD³, Janet Benson PhD³, Jeff Chulay MD⁴, Dave Knop⁴, Christian Mueller PhD^{1,5}, Terence R Flotte MD^{1,5}

¹Horae Gene Therapy Center, University of Massachusetts Medical School; ²Department of Clinical Sciences, Tufts Cummings School of Veterinary Medicine; ³Lovelace Respiratory Research Institute; ⁴Applied Genetics Technologies Corporation; ⁵Department of Pediatrics, University of Massachusetts Medical School

31. A Randomized Controlled Trial of Community Health Workers Using Patient Stories to Support Hypertension Management: Preliminary Results

J. Lee Hargraves, PhD¹, Debra Bonollo, BA², Warren Ferguson, MD, MPH², Elizabeth Orvek, MS, MBA³

¹American Institutes for Research (AIR); ²Family Medicine and Community Health, ³Quantitative Health Sciences, University of Massachusetts Medical School

32. The Home Matters: Adolescents Drink More SSB's When Available at Home

Christina F. Haughton, MPH¹, Molly Waring, PhD², Lori Pbert, PhD¹, Milagros C. Rosal, PhD¹, Stephenie C. Lemon, PhD¹

¹Department of Preventative and Behavioral Medicine, ²Department of Quantitative Health Sciences, University of Massachusetts Medical School

33. Video Capsule Endoscopy in Patients with Muir-Torre Syndrome

Erik Holzwanger, MD¹, Yasir Al-Azzawi, MD¹, David Cave, MD, PhD²
Department of Medicine¹, Division of Gastroenterology², UMass Memorial Medical Center

34. Pleural Sepsis Associated with High Mortality in Orthotopic Liver Transplantation Recipients

Erik Holzwanger, MD¹, Soumil Patwardhan, MBBS¹, and Sunkaru Touray, MBChB², Daniel B. Knox, MD²

Department of Medicine¹, Department of Pulmonary Allergy & Critical Care Medicine², UMass Memorial Medical Center

35. Theoretical and Experimental Analysis of the Antioxidant Features of Phenol and Aniline Model Compounds

William Horton, Swarada Peerannawar, Clifford J. Ellstrom, Béla Török, Marianna Török

Department of Chemistry, University of Massachusetts Boston

36. Emergency Department Super-utilizer Program Involvement: Pilot Data and Methods Challenges

Colette Houssan, BA, Arlene Ash, PhD, Rachel Davis-Martin, PhD, Laurel Banach, BA, Eric Dickson, MD, Edwin Boudreaux, PhD
Department of Emergency Medicine, University of Massachusetts Medical School

37. Collaborating to Cure the Most Common Parasites on the Planet

Yan Hu, Jason Noon, Ambily Abraham, Hanchen Li, Florentina Rus, Deisy Tatiana Pinto Rodriguez, Gary Ostroff, and Raffi Aroian
Program in Molecular Medicine, University of Massachusetts Medical School

38. Resident and Facility-level Correlations of Long-term Opioid Use in United States Nursing Homes

Jacob N. Hunnicutt, MPH¹; Christine Ulbricht, PhD¹; Anne Hume, PharmD²; Kate Lapane, PhD¹

¹University of Massachusetts Medical School; ²University of Rhode Island, Kingston, RI

39. Oxycodone Ingestion Patterns in Acute Fracture Pain: a Pilot Study Using a Digital Pill

Brendan J. Innes¹, Peter R. Chai, MD, MMS^{2,3}, Stephanie C. Carreiro, MD², Brittany Chapman², Matthew K. Griswold, MD², Edward W. Boyer, MD, PhD^{2,3}

¹School of Medicine, ²Division of Medical Toxicology, Department of Emergency Medicine, University of Massachusetts Medical School;

³Division of Medical Toxicology, Department of Emergency Medicine, Brigham and Women's Hospital

40. Health Applications of Network Science and Computational Social Science

James A. Kitts, PhD
Computational Social Science Institute, Department of Sociology,
University of Massachusetts Amherst

41. Selective Environmentally Benign Synthesis of Isotope Labeled Compounds: Introduction of Deuterium into Compounds of Medicinal Relevance

Anne Kokel, Dora Kadish, Béla Török
Department of Chemistry, University of Massachusetts Boston

42. Combination Photodynamic Therapy and Chemotherapy for Temozolomide-Resistant Glioblastoma

Janel Kydd, MS¹, Rahul Jadia, MS¹, Prakash Rai, PhD^{1,2}
¹Biomedical Engineering and Biotechnology Program, ²Department of Chemical Engineering, University of Massachusetts Lowell

43. Pharmacotherapy Use in Older Patients with Heart Failure and Reduced Ejection Fraction Living in Skilled Nursing Facilities

Lin Li, PhD¹, Bill M. Jesdale, PhD¹, Anne Hume, PharmD², Giovanni Gambassi, MD³, Robert J. Goldberg, PhD¹, Kate L. Lapane, PhD¹
¹Department of Quantitative Health Sciences, University of Massachusetts Medical School; ²University of Rhode Island College of Pharmacy, Kingston, RI; ³Department of Medical Sciences, Division of Internal Medicine and Angiology, Catholic University of Sacred Heart, Largo Agostino Gemelli, Rome, Italy

44. Sex Differences in Neighborhood Perceptions and Physical Activity among Older Adults Living in Car-dependent Neighborhoods

Wenjun Li¹, Elizabeth Procter-Gray¹, Linda Churchill¹, Scott Crouter², Kevin Kane¹, Jie Cheng¹, Fuding Rui¹, Jie Tian³, Patricia Franklin⁴, Judith Ockene¹, Jerry Gurwitz¹, MD
¹Department of Medicine, University of Massachusetts Medical School; ²Department of Kinesiology, Recreation, and Sport Studies, University of Tennessee Knoxville; ³Department of International Development, Community, and Environment, Clark University; ⁴Department of Orthopedics and Physical Rehabilitation, University of Massachusetts Medical School

45. Clot Characterization in Acute Ischemic Stroke

Joshua Litchman, BA¹, Juyu Chueh, PhD¹, Rose Arslanian¹, Srinivasan Vedantham, PhD¹, Sarena Carniato², David Rex, MD, PhD¹, Mary Howk, MS¹, Matthew Gounis, PhD¹, Ajit Puri, MD, PhD¹

¹New England Center for Stroke Research, University of Massachusetts Medical School; ²Department of PreClinical Science, Stryker Neurovascular

46. A Novel Bromodomain and Extra-terminal Domain Inhibitors (BETi) that Reverses HIV-1 Latency

Shuai Liu¹, Huachao Huang², Maxime Jean², Wei Zhang¹, Jian Zhu²
¹Department of Chemistry, University of Massachusetts Boston; ²Department of Microbiology and Immunology, University of Rochester Medical Center, Rochester, NY

47. Emotional Eating is Associated with Intake of Energy-dense Foods in Latinos

Andrea Lopez-Cepero, MHSN^{1,2}, Christine Frisard, MS², Stephenie C. Lemon, PhD², and Milagros C Rosal, PhD²
¹Clinical and Population Health Research Program, Department of Quantitative Health Sciences, ²Division of Preventive and Behavioral Medicine, Department of Medicine, University of Massachusetts Medical School

48. Poly (GR) in C9ORF72-related ALS/FTD Compromises Mitochondrial Function and Increases Oxidative Stress and DNA Damage in iPSC-derived Motor Neurons

Rodrigo Lopez-Gonzalez, PhD¹, Yubing Lu, PhD¹, Tania F. Gendron, PhD², Anna Karydas³, Helene Tran, PhD¹, Dejun Yang, PhD¹, Leonard Petrucelli, PhD², Bruce L. Miller, MD³, Sandra Almeida, PhD¹, and Fen-Biao Gao PhD¹
¹Department of Neurology, University of Massachusetts Medical School; ²Department of Neuroscience, Mayo Clinic Florida, Jacksonville, FL; ³Memory and Aging Center, Department of Neurology, University of California, San Francisco, San Francisco, CA

49. Hepatic Changes Associated with Chronic Alcohol Exposure in an Alpha-1 Antitrypsin PiZ Mouse Model

Zhuoyao Lyu¹, Alisha M. Gruntman DVM, PhD^{1,2,4}, Brian O'Sullivan-Murphy MD, PhD³, Christian Mueller PhD^{1,4}, Terence R Flotte MD^{1,4}
¹Horae Gene Therapy Center, University of Massachusetts Medical School; ²Department of Clinical Sciences, Tufts Cummings School of Veterinary Medicine; ³Lovelace Respiratory Research Institute; ⁴Department of Pediatrics, University of Massachusetts Medical School

50. Black-White Disparities in Pain Management among Nursing Home Residents with Cancer

Deborah Mack, MPH¹, Jacob Hunnicutt, MPH¹, Bill Jesdale, PhD², Christine Ulbricht, PhD², Kate Lapane, PhD²

¹Clinical and Population Health Research Program, Graduate School of Biomedical Sciences, ²Department of Quantitative Health Sciences University of Massachusetts Medical School

51. Affordable Pressure Ulcer Prevention: Device, System and Algorithm

John McNeill, PhD¹, Yitzhak Mendelson, PhD¹, Raymond Dunn, MD², Xinming Huang, PhD¹, Devdip Sen¹ Kelli Hickie MD²
¹Worcester Polytechnic Institute, Worcester, MA; ²University of Massachusetts Medical School

52. Cancer Diagnosis using LIBS and Machine Learning Tools: Progress and Challenges

Noureddine Melikechi, PhD¹, Rosalba Gaudio, PhD^{1,2}, Ebo Ewusi-Annan, PhD¹
¹Department of Physics and Applied Physics, University of Massachusetts Lowell; ²Institute of Nanotechnology Nanotec-CNR, Italy

53. PLANET MassCONNECT – Community-engaged Capacity-building Around Evidence-based Programs: Key Takeaways

Sara Minsky, MPH¹, Carmenza Bruff, BS¹, Diana Cortes, BA¹, Shoba Ramanadhan, ScD, MPH^{1,2}, Kasisomayajula Viswanath, PhD^{1,2}, PLANET MassCONNECT Community Partners Advisory Committee (names and affiliations to be highlighted on poster)
¹Center for Community-based Research, Dana-Farber Cancer Institute, Boston, MA; ²Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health, Boston, MA

54. Variable Knowledge, Use and Perceptions of the IMPACT Model among Physicians during Prognostication Meetings for Critically-ill Traumatic Brain Injury Patients – Results from a Qualitative Study

Jesse Moskowitz, BS¹; Thomas Quinn, BS¹; Muhammad W. Khan, MBBS¹, Lori Shutter, MD²; Robert Goldberg, PhD³; Nananda Col, MD, MPP, MPH⁴; Kathleen M. Mazor, EdD^{5,6}; Susanne Muehlschlegel, MD, MPH^{1,7,8}
¹Departments of Neurology (Neurocritical Care), University of Massachusetts Medical School; ²Departments of Critical Care Medicine and Neurology, University of Pittsburgh School of Medicine, Pittsburgh, PA; ³Department of Quantitative Health Sciences, University of Massachusetts Medical School; ⁴Shared Decision Making Resources, Georgetown, ME; ⁵Meyers Primary Care Institute, ⁶Internal Medicine, ⁷Anesthesiology/Critical Care and ⁸Surgery, University of Massachusetts Medical School

55. Matrix Assisted Laser Desorption Ionization (MALDI) Mass Spectrometry: An Imaging Modality to Monitor the Effects of Gene Therapy in a Murine Model of GM1 Gangliosidosis

Khaja Muneeruddin^{1,2}, Bindesh Shrestha⁵, Hernando Olivos⁵, Sophia Todeasa^{3,4}, Eleonora D'Ambrosio^{3,4}, Miguel Sena-Esteves^{3,4}, and Scott A. Shaffer^{1,2}
¹Department of Biochemistry and Molecular Pharmacology, ²Proteomics and Mass Spectrometry Facility, ³Department of Neurology, ⁴Gene Therapy Center, University of Massachusetts Medical School; ⁵Waters Corporation, Milford, MA

56. The Smoking Paradox in the Development of Psoriatic Arthritis among Psoriasis Patients – A Population-Based Study

Uyen-Sa D. T. Nguyen, DSc, MPH^{1,2}, Yuqing Zhang, DSc, MPH^{2,3}, Na Lu, MPH^{2,3}, Qiong Louie-Gao, PhD², Jingbo Niu, DSc, MPH^{2,4}, Thorvador J. Love, MD⁵, Alexis Ogdie, MD, MSCE⁶, Joel M. Gelfand, MD, MSCE⁶, Michael P. LaValley, PhD², Maureen Dubreuil, MD, MSc², Jeffrey A. Sparks, MD, MMS⁷, Elizabeth W. Karlson, MD⁷, Hyon K. Choi, MD, DrPH^{2,3}
¹University of Massachusetts Medical School; ²Boston University School of Medicine; ³Massachusetts General Hospital, Harvard Medical School; ⁴Baylor Medical School; ⁵University of Iceland; ⁶University of Pennsylvania Perelman School of Medicine; ⁷Brigham and Women's Hospital, Harvard Medical School

57. Racial Differences in the Effectiveness of Total Knee Arthroplasty (TKA) on Postoperative Pain and Function

Uyen-Sa D. T. Nguyen, DSc, MPH, Anthony Porter, MD, Wenjun Li, PhD, Wenyun Yang, MS, David C. Ayers, MD, and Patricia D. Franklin, MD MBA MPH
Department of Orthopedics and Physical Rehabilitation, University of Massachusetts Medical School

58. Utilizing Mucosal Protrusion Angles to Discriminate Between True and False Masses of the Small Bowel on Video Capsule Endoscopy

Michael G. Noujaim MSc¹, May Min MD², David Cave MD/PhD^{2,3}
¹University of Massachusetts Medical School, ²Department of Internal Medicine, ³Division of Gastroenterology, University of Massachusetts Medical School

59. Macroglossia in Inclusion Body Myositis

Jatinder S. Patti, MD, Kate Daniello, MD, Lan Qin, MD
Department of Neurology, University of Massachusetts Medical School

60. Dermatomyositis as Paraneoplastic Manifestation of Tonsillar Squamous Cell Carcinoma

Jatinder S. Patti, MD, Kate Daniello, MD, Lan Qin, MD
Department of Neurology, University of Massachusetts Medical School

61. Using Hospital Discharge Data to Assess Trends of Carbapenem-resistant Enterobacteriaceae in Rhode Island

Seth Peters, MPH, and Sarah Hart Shuford, MPH
Center for Acute Infectious Disease Epidemiology, Division of Preparedness, Response, Infectious Disease, and Emergency Medical Services, Rhode Island Department of Health

62. Fetal and Childhood Effects of Children Exposed to Opioids, Opioid Maintenance Therapy (OMT), and Methamphetamine In Utero

Seth Peters, MPH^{1,2}
¹First Faculty of Medicine, Charles University, Prague, Czech Republic;
²Rhode Island Department of Health

63. Building Better Tumor Models In Vitro: An Investigation into the Improvement of 3D Cell Culture Techniques

Brandon Piel¹, Micheal Doane^{1,3}, Praveena Velpurisiva², Prakash Rai¹
¹Department of Chemical Engineering, ²Department of Biomedical Engineering and Biotechnology, ³Department of Biological Sciences, University of Massachusetts Lowell

64. Misclassification of Healthy Eating Based on Food Frequency Questionnaires and 24-hour Dietary Recalls in Older Men and Women

Elizabeth Procter-Gray, Barbara Olendzki, Kevin Kane, Linda Churchill, Rashelle Hayes, Annabella Aguirre, Hyung-Joo Kang, Wenjun Li
Department of Medicine, University of Massachusetts Medical School

65. “Can’t You Just Say?” – Contrasting Communication Preferences between Surrogate Decision-Makers and Physicians during Outcome Prognostication in Critically-Ill Traumatic Brain Injury Patients

Thomas Quinn, BS¹; Jesse Moskowitz, BS¹; Muhammad W. Khan, MBBS¹, Lori Shutter, MD²; Robert Goldberg, PhD³; Nananda Col, MD, MPP, MPH⁴; Kathleen M. Mazor, EdD^{5,6}; Susanne Muehlschlegel, MD, MPH^{1,7,8}
¹Department of Neurology (Neurocritical Care), ²Departments of Critical Care Medicine and Neurology, University of Pittsburgh School of Medicine, ³Department of Quantitative Health Sciences, ⁴Shared Decision Making Resources, Georgetown, ME, ⁵Meyers Primary Care Institute, ⁶Internal Medicine, ⁷Anesthesiology/Critical Care and ⁸Surgery, University of Massachusetts Medical School

66. Combined Active Humoral and Cellular Immunization Approaches for the Treatment of Synucleonopathies

Edward Rockenstein¹, Gary Ostroff², Fusun Dikengil³, Florentina Rus², Michael Mante¹, Jazmin Florio¹, Anthony Adame¹, Ivy Trinh¹, Cassia Overk¹, Eliezer Masliah¹ and Robert Rissman¹
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67. Liposomal Bupivacaine in Total Knee Arthroplasty: Preliminary Results of a Two-Surgeon, Retrospective Study

Hayden B. Rockson, MD, MA¹, Jeffrey N. Metzmaker, MD¹, David C. Ayers, MD¹, Anthony L. Schwagerl, MD, PhD²
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68. Defining Success in Perioperative Care Pathways for Hip Fracture Patients

Hayden Rockson, MD, MA¹, Brian Clair, MD¹, Christine Motzkus², Amrit Vinod², Michael Schoor, MD³, Matthew Stebulis, MD³, Mark Kraus, MD¹
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69. Assessment of a Novel Pediatric Resident Simulation Curriculum

Kyle Schoppel MD¹, Christopher Lops MD², Nicholas Cormier³, Alanna Hickey³, Suzanne Sprague MD¹, Peter Sell DO⁴, Kathryn Wynne MD⁵, Anne Weaver, BSN RN CCRN⁶, Stacey Valentine MD, MPH⁴
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70. Development and Evaluation of a Mentorship to Hire Program for Facilitating Nursing Role Development and Transition to Practice

Monika S. Schuler, PhD, RN, CNE
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71. Feasibility, Safety and Acceptability of Soy-Based Diet for Pregnant Women: Preliminary Results from a Pilot Randomized Controlled Trial

Ling Shi, PhD¹, Vidya Iyer, MD², Errol Norwitz, MD², Tiffany A. Moore Simas, MD³, Nirupa R Matthan, PhD⁴, Alice H. Lichtenstein, ScD⁴, Laura L. Hayman, PhD¹

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72. Recruiting Low Income Post-Partum Women into a Weight Loss Trial: In-Person versus Facebook Delivery

Valerie J. Silfee, PhD; Andrea Lopez-Cepero, MPH; Stephenie C. Lemon, PhD; Milagros C. Rosal, PhD
University of Massachusetts Medical School

73. In Vivo Protection with Human Monoclonal Antibody S315 following Challenge with Diphtheria Toxin

Heidi L. Smith, MD, PhD¹; Maria Lobikin, PhD¹; Wenda Gao, PhD²; Greg Saia, PhD¹; Yang Wang, PhD¹; Mark Leney, PhD¹; Deborah C. Molrine, MD, MPH¹
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74. Caste Matters: Perceived Discrimination among Women in Rural India

Apurv Soni¹, Jasmine Khubchandani¹, Nisha Fahey¹, Nitin Raithatha², Anusha Prabhakaran², Nancy Byatt¹, Tiffany A Moore Simas¹, Ajay Phatak², Milagros Rosal¹, Somashekhar Nimbalkar², Jeroan J Allison¹
¹University of Massachusetts Medical School; ²Pramukhswami Medical College, Karamsad, India

75. Developing a Community-Based Screening and Referral Mechanism for Atrial Fibrillation in Low Resource Settings: “Smartphone Monitoring for Atrial Fibrillation in Real-Time – India (SMART-India)”

Apurv Soni¹, Nisha Fahey¹, Harshil Patel², Kandarp Talati², Anna Handorf¹, John Bostrom¹, Shyamsundar Raithatha², Ravi Shah¹, Sunil Karna², Robert Goldberg¹, Jeroan J. Allison¹, Ki Chon³, Somashekhar Nimbalkar², David D. McManus¹
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76. Exploring the Contributions of Local Health Departments in Land Use and Transportation Policy: Implications for Cross-sector Collaboration

Meera Sreedhara, MPH¹, Karin Valentine Goins, MPH¹, Semra Aytur, PhD², Katie Heinrich, PhD³, Jay Maddock, PhD⁴, Stephenie Lemon, PhD¹
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77. Imaging Probes for Detecting Inflammation in the Mouse Model of Type 1 Diabetes

Toloo Taghian, PhD¹, Suresh Gupta, PhD¹, Adam J. Dixon, PhD², Surong Zhang, PhD¹, Alexei A. Bogdanov, PhD¹

¹Department of Radiology, University of Massachusetts Medical School; ²Department of Biomedical Engineering, University of Virginia, Charlottesville, VA

78. Companion Diagnostics for Breast Cancer Chemotherapeutics

Monica Tawadros, BS¹, Michael Morin, PhD¹, Peter Gaines, PhD¹, Abiche Dewilde, PhD²

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79. The Effects of Yoga on Adults with Type II Diabetes: A Systematic Review and Meta-analysis

Herpreet Thind, PhD,¹ Lori A. J. Scott-Sheldon, PhD,^{2,3} Ryan Lantini, MA,² Brittany Balletto, BS,² Marissa Donahue, BA,² Melissa Feulner, BS,² Elena Salmoirago-Blotcher, MD, PhD,^{2,3} Beth C. Bock, PhD^{2,3}

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80. Inhibition of Insulin Amyloid Formation by Small Organofluorine Molecules

Yanique Thomas, William Horton, Chris D. Tran, Clifford J. Ellstrom, Béla Török, Marianna Török
Department of Chemistry, University of Massachusetts Boston

81. Home Interventions for Older Adults with Asthma

David A. Turcotte, ScD¹, Susan Woskie, PhD², Emily Chaves, MA, MS¹, Kelechi Adejumo, MS², Rebecca Gore, PhD²

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82. Pediatric Critical Care Transfusion and Anemia Expertise Initiative

Stacey Valentine, MD, MPH¹, Scot Bateman, MD¹, Mela Bembea, MD², Phillip Spinella, MD³, Allan Doctor, MD³, Nabil Hassan, MD⁴, Robert Parker, MD⁵, Marie Steiner, MD⁶, Marisa Tucci, MD⁷, Jacques Lacroix, MD⁷

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⁷Department of Pediatrics, University of Montreal, Montreal, Quebec, Canada

83. Transcriptional Regulation of Cardiac Remodeling in a Porcine Model with Validation in Human Subjects

Aditya Vaze MD¹, David McManus MD*², Kevin Donahue MD*²

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84. Polymeric Nanoparticles for Targeted Combination Treatment of Temozolomide Resistant Glioblastoma Multiforme (GBM)

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85. Optimizing Microfluidic Design for Cell Separation

Joseph Wakim¹, Marisel De Jesús Vega¹, Nese Orbey¹, Carol Barry²

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86. Implementation of SAMHSA-funded Offender Re-Entry Programs Addressing Substance Use and Co-occurring Disorders among Justice Involved Latino Adults

Angela Wangari Walter, PhD, MPH, MSW¹, Jessica Hall, MSW², Deborah Chassler, MSW², Rachel Mullins, BS², Dilia DeJesus, MTS³, Emily Stewart, BA³, Lena Lundgren, PhD²

¹Department of Public Health, College of Health Sciences, University of Massachusetts Lowell; ²Boston University School of Social Work, Center for Addictions Research and Services; ³Casa Esperanza, Inc.

87. Accuracy and Coverage of Using the Assigned International Classification of Diseases, 9th and 10th Revision, Clinical Modification Codes for Detecting Bleeding Events in Electronic Health Record

Victoria J. Wang, BS¹, David D. McManus, MD, ScM², Hong Yu, PhD, FACMI¹

¹Department of Quantitative Health Sciences, ²Department of Medicine, University of Massachusetts Medical School

88. Pre-exposure Immunoprophylaxis by Genetically Encoded DMAb anti-OspA Human Monoclonal Antibody to Prevent Lyme Disease

Yang Wang, MD, PhD¹, Seleeke Flingai, PhD², Aurélie Kern, PhD³, Sangya Agarwal, MS², Zachary Schiller, MS¹, Kaori Graybeal, MS¹,

Rianne Esquivel, PhD², Ami Patel, PhD², Linden Hu, MD³, David Weiner, PhD², Mark Klempner, MD¹

¹MassBiologics at UMMS, Boston, MA; ²The Wistar Institute, Philadelphia, PA; ³Sackler School of Graduate Biomedical Sciences, Tufts University School of Medicine, Boston, MA

89. Effect of Exercise Training on Microvascular Function in African American and Caucasian Women

Huimin Yan, PhD¹, Keyshla M Melendez-Rosado, BS¹, and Robert C Hickner, PhD²

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90. Enhancement of the Abscopal Effect in Radiotherapy by In-situ Delivered CD40 Antibody: Pancreatic Adenocarcinoma Model

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91. Using mHealth App to Support TKR Decision Making for Knee Arthritis Patients

Hua Zheng, PhD¹, Bengisu Tulu, PhD², Wonchan Choi, PhD², Patricia Franklin, MD, MBA, MPH¹

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92. Direct-to-Patient PRO Collection to Support Quality Improvement in TJR

Hua Zheng, PhD; Celeste Lemay, RN, MPH; Wenyun Yang, MS; Patricia Franklin, MD, MBA, MPH

University of Massachusetts Medical School

93. Roux-en-Y Gastric Bypass Surgery Regulates Mitochondrial Dynamics Proteins in Primary Human Myotubes Derived from Severely Obese Humans

Kai Zou, PhD¹, J. Matthew Hinkley, PhD², Sanghee Park, PhD², Donghai Zheng, PhD², G. Lynis Dohm, PhD², Joseph A. Houmard, PhD²

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