May 20th, 12:30 PM

Poster Session Program: 2016 UMass Center for Clinical and Translational Science Research Retreat

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1. **Piloting Signs of Safety: A Deaf-Accessible Toolkit for Trauma and Addiction**  
Melissa L. Anderson, PhD¹, Kelly S. Wolf Craig, PhD², Amanda Sortwell, MS, IMF³, Douglas M. Ziedonis, MD, MPH¹  
¹Department of Psychiatry, Systems & Psychosocial Advances Research Center (SPARC), University of Massachusetts Medical School, Worcester, MA; ²Department of Developmental Services, East Hartford, CT; ³Deaf Community Behavioral Health Services, San Diego, CA

2. **Plasma PLP Concentration and Depressive Symptomatology, Over Time, in Older Latino Adults**  
Sandra P. Arévalo, PhD¹, Tammy Scott, PhD, MPH⁴, Luis M. Falcón, PhD⁵, Katherine L. Tucker, PhD¹  
¹Department of Clinical Laboratory and Nutritional Sciences, University of Massachusetts Lowell; ²Department of Psychiatry, Tufts University School of Medicine; ³College of Fine Arts, Humanities and Social Sciences, University of Massachusetts Lowell

3. **Race/Sex Group Modification of the Association between Allostatic Load and Depression: Findings from the National Health and Nutrition Examination Survey, 2005-2010**  
Ganga Bey, MPH, Sharina Person, PhD  
Department of Quantitative Health Sciences, University of Massachusetts Medical School

4. **Prospective Relations between Red Blood Cell $\omega$-6 and $\omega$-3 Fatty Acid Composition and Cognitive Function among Older Puerto Rican Adults**  
Sherman J Bigornia¹, Tammy M Scott², William S Harris³, and Tucker L Katherine¹  
¹Clinical Laboratory & Nutritional Sciences, University of Massachusetts Lowell; ²USDA Jean Mayer Human Nutrition Research Center on Aging, Tufts University; ³Department of Medicine, Sanford School of Medicine of the University of South Dakota

5. **Implantable Microenvironments to Capture Stable-to- Aggressive Tumor Transition**  
Ryan Carpenter, Jungwoo Lee  
Department of Chemical Engineering, Institute for Applied Life Sciences University of Massachusetts Amherst

6. **Utilizing the Green Nursing Project Initiative to Educate Nurses about Health Effects Related to Exposure of Chemicals Contained in Household and Personal Care Products and to Inspire Them to Take Action**  
Lisa Chan MSN, RNC-OB¹, Stephanie Chalupka, EdD, RN, PHCNS-BC, FAAOHN, FNAP²  
¹UMass Memorial Medical Center, ²Worcester State University
7. A Reduced Order Model For Efficient Physiological Flow Analysis In Aneurysms by Proper Orthogonal Decomposition
   Gary Han Chang, Yahya Modarres-Sadeghi
   Mechanical Engineering, University of Massachusetts Amherst

8. The Effect of Mobile Self-monitoring on Self-care Behaviors in Heart Failure and COPD Patients: A Feasibility Study
   Elizabeth Chin, PhD, RN¹, Kristen Sethares, PhD, RN, CNE¹, Paul Fortier, PhD², Benjamin Viall, PhD²
   ¹College of Nursing, ²College of Engineering, University of Massachusetts Dartmouth

9. Workplace Predictors of Perceived Quality of Care in Nursing Homes
   Winnie Chin, MS¹, Laura Punnett, ScD², Rebecca Gore, ScD², Laura Kernan, MS², Procare Research Team²
   ¹Occupational Ergonomics and Safety Program, ²Department of Work Environment, University of Massachusetts Lowell

10. Community-based Participatory Research to Promote Healthy Diet and Nutrition and Prevent and Control Obesity among African Americans: A Literature Review
    Steven Coughlin, PhD¹, Selina Smith, PhD, MDiv²
    ¹Division of Public Health, University of Massachusetts Lowell; ²Institute of Public and Preventive Health, Augusta University, Augusta, GA

11. Bioavailability of the Antimalarial Drug Artemisinin Delivered Orally as Dried Leaves of Artemisia annua: the Role of Solubility and Protein
    Matthew Desrosiers, Pamela Weathers
    Department of Biology and Biotechnology, Worcester Polytechnic Institute

12. Sulforaphane Treatment of Children with Autism Spectrum Disorder
    Eileen Diggins, BA, Andrew Zimmerman, MD, Kanwaljit Singh, MD, Susan Connors, MD
    Division of Neurology, Department of Pediatrics, University of Massachusetts Medical School

    Steven T. DiSegna, MD, Wenyun Yang, BS, David C. Ayers, MD, Patricia D. Franklin, MD, MBA, MPH
    Department of Orthopedics and Physical Rehabilitation, University of Massachusetts Medical School

14. Change in Anti- gp120 Human Monoclonal Antibody Isotype Significantly Improves HIV-1 Neutralization
    Mark Duval, Melissa Gawron, Lisa Cavacini
    MassBiologics of the University of Massachusetts Medical School

15. Identification of GDF-6 Blocking Antibodies as Anti-melanoma Therapeutics
    Monir Ejemel¹, Danielle Wisheart¹, Alec Gramann², Arvind Venkatesan², Mark S. Klempner¹, Craig J. Ceol², Yang Wang¹
    ¹MassBiologics of the University of Massachusetts Medical School, ²Program in Molecular Medicine, University of Massachusetts Medical School

16. Anthelminthic Screening for Parasitic Nematodes
    Mostafa Elfawal, PhD¹, Dan Lawler M.Eng², Dirk Albrecht, PhD², Raffi Aroian, PhD¹
    ¹Program in Molecular Medicine, University of Massachusetts Medical School, ²Quantitative Neurology Laboratory, Worcester Polytechnic Institute
17. Herpes Zoster and Cardiovascular Events in Adults: A Systematic Review
Nathaniel A. Erskine, BA, Hoang Tran, MD, MPH, Leonard L. Levin, MS, LIS, MA, Christine M. Ulbricht, PhD, MPH, Joyce D. Fingeroth, MD, Catarina I. Kiefe, PhD, MD, Robert J. Goldberg, PhD
1Department of Quantitative Health Sciences, 2Lamar Soutter Library, 3Division of Infectious Diseases and Immunology, Department of Medicine, 4Division of Cardiovascular Medicine, Department of Medicine, University of Massachusetts Medical School

18. Geometric Control of YAP-dependent Mechanotransduction: A Proposed Model
Ngozi A. Eze, Heather A. Cirka, Kristen L. Billiar
Department of Biomedical Engineering, Worcester Polytechnic Institute

19. Sustained Expression with Partial Correction of Neutrophil Defects 5 Years After Intramuscular rAAV1 Gene Therapy for Alpha-1 Antitrypsin Deficiency
Terence R. Flotte, Christian Mueller, Gwladys Gernoux, Alisha M. Gruntman, Jeffery Chulay, Dave Knop, Noel G. McElvaney, Martha Campbell-Thompson, James M. Wilson
1Horae Gene Therapy Center, 2Department of Pediatrics, University of Massachusetts Medical School, 3Tufts Cummings School of Veterinary Medicine, 4Applied Genetic Technologies Corporation, 5Royal College of Surgeons of Ireland, 6University of Florida, 7University of Pennsylvania

Daniel M. Frendl, Mara M. Epstein, Hassan Fouayzi, Richard Krajenta, Benjamin A. Rybicki, Mitchell H. Sokoloff
1Department of Quantitative Health Sciences, 2Department of Medicine, 3The Meyers Primary Care Institute, University of Massachusetts Medical School; 4Department of Public Health Sciences, Henry Ford Health System, Detroit, MI; 5Department of Urology, University of Massachusetts Medical School

Deborah Frenkel PhD, Samuel J. Black PhD
Department of Veterinary and Animal Sciences, University of Massachusetts Amherst

22. Transferrin Conjugated Polymeric Nanomedicine for Targeting Pancreatic Cancer using Paclitaxel and Gemcitabine
Aniket Gad, MS, Michael Tilton, BS, Brandon Piel BS, Prakash Rai, PhD
1Biomedical Engineering and Biotechnology Program, University of Massachusetts Lowell, 2Research Associates, 3Department of Chemical Engineering, University of Massachusetts Lowell

23. ErbB2 Signaling Increases Androgen Receptor Expression in Abiraterone-Resistant Prostate Cancer
Shuai Gao, Huihui Ye, Sean Gerrin, Hongyun Wang, Ankur Sharma, Sen Chen, Akash Patnaik, Adam G. Sowalsky, Olga Voznesensky, Wanting Han, Ziyang Yu, Elahe Mostaghel, Peter S. Nelson, Mary-Ellen Taplin, Steven P. Balk, Changmeng Cai
1Center for Personalized Cancer Therapy, University of Massachusetts Boston, 2Pathology, Beth Israel Deaconess Medical Center, 3Hematology-Oncology Division, Beth Israel Deaconess Medical Center, 4Medicine, BIDMC, 5Department of Cancer Biology, Thomas Jefferson University, 6Medicine, Beth Israel Deaconess Medical Center, 7Medicine-Hematology/Oncology, University of Chicago, 8Laboratory of Genitourinary Cancer Pathogenesis, National Cancer Institute, 9Human Biology and Clinical Research, Fred Hutchinson Cancer Research Center, 10Division of Human Biology, Fred Hutchinson Cancer Research Center, 11Dana-Farber Cancer Institute, 12Division of Hematology and Oncology, Department of Medicine, Beth Israel Deaconess Medical Center and Harvard Medical School
24. Humanized Mice for the Generation of HIV-1 Human Monoclonal Antibodies
Melissa Gawron¹, Mark Duval¹, Michael Brehm², Dale Greiner², Leonard Shultz³, Smita Jaiswal², Sean McCauley², Ann Dauphin², Jeremy Luban², Lisa Cavacini¹
¹MassBiologics of the University of Massachusetts Medical School, ²University of Massachusetts Medical School, Worcester, MA and ³The Jackson Laboratory, Bar Harbor, ME

25. Sex Differences in Cognition, Emotional Reactivity, and Motor Ability in Gonadally-intact Middle-aged Marmosets (Callithrix jacchus)
Nicole J. Gervais, PhD¹, Kathryn P. Workman, BS², Matthew LaClair, BS², Agnès Lacreuse, PhD¹,²,³
¹Center for Neuroendocrine Studies, ²Neuroscience and Behavior Program, ³Department of Psychological and Brain Sciences, University of Massachusetts Amherst

26. Burden of Adverse Metabolic Factors is Associated with Increased Left Ventricular Concentricity in Adults with Normal-Range Body Mass Index: The Framingham Heart Study
Philimon Gona, PhD¹, Jane Lee, MS, PhD², Carol J. Salton, BA³, Christopher J. O'Donnell, MD, MPH²,³, Warren J. Manning, MD³, Michael L. Chuang, MD⁴
¹Department of Exercise and Health Sciences, University of Massachusetts, Boston; ²The NHLBI’s Framingham Heart Study; ³Cardiovascular Division and ⁴Department of Radiology, Beth Israel Deaconess Medical Center; ⁵Harvard Medical School

27. Developing anti-GDF6 Therapeutics for Treatment of Advanced Melanoma
Alec Gramann¹, Arvind Venkatesan¹, Monir Ejemel², Danielle Wisheart², Yang Wang, MD, PhD², Craig Ceol, PhD¹
¹Program of Molecular Medicine, University of Massachusetts Medical School, ²MassBiologics of the University of Massachusetts Medical School

28. Implementation and Utilization of Mobile Technology In Adolescent Bariatric Surgery Patients
Jonathan Green, MD¹, Jeremy T. Aidlen, MD², Sherry Pagoto, PhD³, Jennifer Bram, MD⁴
¹Department of General Surgery, ²Division of Pediatric Surgery, Department of General Surgery, ³Division of Preventive and Behavioral Medicine, Department of Medicine, ⁴Department of Pediatrics, University of Massachusetts Medical School

29. Serum Levels of Alpha-1 Antitrypsin Following Vascular Limb or Intra-Muscular Delivery of AAV1 or AAV8 Gene Therapy Vectors in Rhesus Macaques
Alisha M. Gruntman, DVM¹,², Gwladys Gernoux, PhD¹, Gensheng Wang, PhD³, Janet Benson, PhD³, Jeff Chualy, MD⁴, Dave Knop⁴, Christian Mueller, PhD¹,⁵, Terence R. Flotte MD¹,⁵
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

30. Discovery and Development of Human Monoclonal Antibodies to Block RhD Alloimmunization During Pregnancy
Tushar Gupta¹, Melissa Gawron¹, Colby Souders¹, Michael Brehm², Dale Greiner², Leonard Shultz³, Smita Jaiswal², Sean McCauley², Ann Dauphin², Jeremy Luban², Lisa Cavacini¹
¹MassBiologics of the University of Massachusetts Medical School and ²University of Massachusetts Medical School, ³The Jackson Laboratory, Bar Harbor, ME

31. Older Women’s Muscle and Gait Response to a Bout of Exercise Differs by Physical Activity Level
Jocelyn F. Hafer, MA, Katherine A. Boyer, PhD
Department of Kinesiology, University of Massachusetts Amherst
32. Advancing Medical Device and Biotech Innovations
   Nathaniel Hafer, PhD¹, Margaret Koziel, MD¹, Stephen McCarthy, PhD², Steven Tello, EdD³
   ¹UMass Center for Clinical and Translational Science, University of Massachusetts Medical School,
   ²Massachusetts Medical Device Development Center (M2D2), University of Massachusetts Lowell,
   ³Entrepreneurhsip and Economic Development, University of Massachusetts Lowell

33. Analysis of A Novel Nonsense Mutation of Androgen Receptor Gene in Castration-Resistant Prostate Cancer
   Dong Han, PhD¹, Kevin Valencia¹, Shuai Gao, PhD¹, and Changmeng Cai, PhD¹
   ¹Center for Personalized Cancer Therapy, University of Massachusetts Boston

34. Racial/Ethnic Disparities in Meeting 5-2-1-0 Recommendations among Adolescents in the United States
   Christina Haughton, MPH¹, Stephenie Lemon, PhD²
   ¹Graduate School of Biomedical Sciences, ²Division of Preventive and Behavioral Medicine, Department of Medicine, University of Massachusetts Medical School

35. Theoretical and Experimental Analysis of the Antioxidant and Anti-amyloid Features of Synthetic Resveratrol Mimics
   William Horton, Anne Kokel, Fanni Török, Chris Tran, Marianna Török, Béla Török
   Department of Chemistry, University of Massachusetts Boston

36. Hospice and Pain Management in Nursing Home Residents with Cancer
   Jacob N. Hunnicutt, MPH, Jennifer Tjia, MD, Kate L. Lapane, PhD
   Department of Quantitative Health Science, University of Massachusetts Medical School

37. Remotely Triggered Polymeric Nanoparticles for the Treatment of Triple Negative Breast Cancer
   Rahul Jadia¹, Brandon Piel², Michael Tilton², Prakash Rai¹,³
   ¹Biomedical Engineering and Biotechnology Program, ²Research Associates, ³Department of Chemical Engineering, University of Massachusetts Lowell

38. Which are the Primary Factors Influencing Running Stride Parameters: Age or Lower Limb Strength?
   Carl Jewell¹, Eric Rohr², Joseph Hamill¹, Katherine A. Boyer¹
   ¹University of Massachusetts Amherst, ²Brooks Sports, Inc.

39. Translating Dosage Compensation to Trisomy 21
   Jun Jiang¹, Yuanchun Jing¹, Gregory J. Cost², Jen-Chieh Chiang¹, Heather J. Kolpa¹, Allison M. Cotton³, Dawn M. Carone¹, Benjamin R. Carone¹, Meg Byron¹, Philip D. Gregory², Carolyn J. Brown³, Fyodor D. Urnov², Lisa L. Hall¹, and Jeanne B. Lawrence¹
   ¹Department of Cell and Developmental Biology, University of Massachusetts Medical School, ²Sangamo BioSciences, ³Department of Medical Genetics, University of British Columbia

40. Reducing Phlebotomy-Induced Blood Loss in the PICU: A Quality Improvement Study
   Amanda Johnson, MD, Ariel Hoch, DO, Scot Bateman, MD, Stacey Valentine, MD, MPH
   Division of Pediatric Critical Care, Department of Pediatrics, University of Massachusetts Medical School/UMass Memorial Children's Medical Center

   Tabassum Kakar, BS¹, Xiao Qin, MS¹, Susmitha Wunnava, MS¹, Prof. Elke A. Rundensteiner, PhD¹
   ¹Department of Computer Science, Worcester Polytechnic Institute
42. Neighborhood Differences in the Availability of Healthy Foods in the City of Worcester  
Kevin Kane, MS, Maximilian Hoffman, BS, Jie Cheng, MS, Barbara Olendzki, MPH, RD, Wenjun Li, PhD  
Health Statistics and Geography Lab, Division of Preventive and Behavioral Medicine, Department of  
Medicine, University of Massachusetts Medical School

43. Characterization of Respiratory Phenotype in Very Long-chain Acyl-CoA Dehydrogenase Deficient Mice  
Allison Keeler, PhD, Kaitlyn Desrochers, BS, Mai ElMallah, MD  
Department of Pediatrics, Gene Therapy Center, University of Massachusetts Medical School

44. Long-lasting Effects of Perinatal Exposure to Brominated Flame Retardant on Male Reproductive Outcomes in Rat Model  
Ahmed Khalil PhD, Daneal Portman, Jake Jensen, Michael Panchenko, Alexander Suvorov PhD  
Department of Environmental Health Sciences, University of Massachusetts Amherst

45. A Pilot Randomized Controlled Trial of a Videoconferencing Smoking Cessation Intervention for Korean American Women: Preliminary Findings  
Sun S. Kim, PhD, APRN1, Somporn Sitthisongkram, MS1, Kunsook Bernstein, PhD, APN2, Hua Fang, PhD3, Won S. Choi, PhD, MPH1, Douglas Ziedonis, MD, MPH5  
1University of Massachusetts Boston-College of Nursing and Sciences, 2Hunter College City of New York-School of Nursing, 3Department of Quantitative Health Sciences, University of Massachusetts Medical School, 4Department of Preventive Medicine and Public Health, University of Kansas Medical Center  
5Department of Psychiatry, University of Massachusetts Medical School

46. Health Applications of Social Network Analysis and Computational Social Science  
James Kitts  
Department of Sociology, Computational Social Science Institute, University of Massachusetts Amherst

47. Crystal Protein Cry5B as a Novel and Powerful Anthelmintic  
David Koch, BS, Zeynep Mirza, MS, Yan Hu, PhD, Thanh-thanh Nguyen, BS, Gary Ostroff, PhD, Raffi V. Aroian, PhD  
Program in Molecular Medicine, University of Massachusetts Medical School

48. Estimated and Self-reported Workloads and Lower Extremity Symptoms for Nurses and Nursing Assistants  
Alicia Kurowski, ScD, Laura Punnett, ScD  
Work Environment Department, University of Massachusetts Lowell

49. Synthetic Intestinal Mucosal Barrier Using a Hydrogel Slab Integrated Microfluidic Chip  
Jun-Goo Kwak1, Abhinav Sharma1, Jungwoo Lee1,3  
1Department of Chemical Engineering, 2Molecular and Cellular Biology Graduate Program, 3Institute for Applied Life Sciences, University of Massachusetts Amherst MA

Connie Lee, MD1, Ann-Kristin U. Friedrich, MD1, Anne C. Larkin, MD2, B. Marie Ward, MD2, Ashling O’Connor, MD2, Robert M. Quinlan, MD2, Giles F. Whalen, MD2, Jennifer LaFemina, MD2  
1Department of Surgery, 2Division of Surgical Oncology, University of Massachusetts Medical School

51. Effective Pain Information Pre-operatively is Associated with Improved Functional Gain after Total Joint Replacement  
Celeste A. Lemay, RN, MPH; David Ayers, MD; Patricia D. Franklin, MD, MBA, MPH  
Department of Orthopedics and Physical Rehabilitation, University of Massachusetts Medical School
52. Using Interviews to Understand Patients’ Post-operative Pain Management Educational Needs Before and After Elective Total Joint Replacement Surgery
Celeste A. Lemay, RN, MPH and Patricia D. Franklin, MD, MBA, MPH
Department of Orthopedics and Physical Rehabilitation, University of Massachusetts Medical School

53. Correlates of Hyaluronic Acid and Corticosteroid Injections among Patients with Radiographically Confirmed Osteoarthritis
Shao-Hsien Liu, MPH1; Catherine E. Dubé, EdD2; Jeffrey B. Driban, PhD3; Timothy E. McAlindon, MD, MPH3; Charles B. Eaton, MD, MS4,5; Kate L. Lapane, PhD, MS2
1Clinical and Population Health Research Program, Graduate School of Biomedical Sciences, University of Massachusetts Medical School, 2Division of Epidemiology of Chronic Diseases and Vulnerable Populations, Department of Quantitative Health Sciences, University of Massachusetts Medical School, 3Division of Rheumatology, Tufts Medical Center, Boston, MA, 4,5Center for Primary Care and Prevention, Memorial Hospital of Rhode Island, Pawtucket, RI and Departments of Family Medicine and Epidemiology, Warren Alpert Medical School, School of Public Health, Brown University, Providence, RI

54. Emergency Medicine Providers Systematically Underestimate Their Opioid Prescribing Practices
Sean S. Michael, MD1, Kavita M. Babu, MD1, Christopher Androski Jr., MS2, Martin A. Reznek, MD, MBA1
1Department of Emergency Medicine, University of Massachusetts Medical School, 2University of Massachusetts Medical School

55. Terpenes as ‘Resistance-busting” Anthelmintic Drug
Zeynep Mirza, MS, David Koch, Thanh Nguyen, Yan Hu, PhD, Raffi Van Aroian, PhD, Gary Ostroff, PhD Program in Molecular Medicine, University of Massachusetts Medical School

56. Physiological and Social Stress on Cognitive Performance
Doreet Nagatti, Daniele Anina, Maria Daigle, Kymberlee M. O’Brien
Worcester Polytechnic Institute

57. The Use of Complementary and Alternative Medicine (CAM) and Imported Medications by Brazilians in Massachusetts
Adriana Negrini, BA, Renata Dalla Costa, BS, Christina Hernon, MD
University of Massachusetts Medical School

58. Human Monoclonal Antibodies to Plasmodium falciparum Circumporozoite Protein for Transient Passive Protection of Malaria Travelers to Endemic Areas
Stuart Nelson1, Douglas Golenbock2, Ann Moormann3, Colby Souders1, Lisa Cavacini1
1MassBiologics of the University of Massachusetts Medical School, 2Program in Infectious Diseases and Immunology, University of Massachusetts Medical School, 3Program in Molecular Medicine, University of Massachusetts Medical School

59. Total Hip Arthroplasty and Mental Health Status
Uyen-Sa D. T. Nguyen, DSc, MPH1, Thomas Perneger, MD, PhD2, Patricia D. Franklin, MD, MBA, MPH1, Christophe Barea, PhD3, Pierre Hoffmeyer, MD3, Anne Lübbeke, MD, DSc3
1Department of Orthopedics and Physical Rehabilitation, University of Massachusetts Medical School, 2Clinical Epidemiology Service, and 3Division of Orthopaedic and Trauma Surgery, Geneva University Hospitals, Geneva, Switzerland

60. 6-Month Change in Pain and Function by Pre-Operative Pain and Function among Patients Selected for Total Knee Replacement in the United States
Uyen-Sa D. T. Nguyen, David C. Ayers, Wenjun Li, Leslie Harrold, Patricia D. Franklin
Department of Orthopedics and Physical Rehabilitation, University of Massachusetts Medical School
61. Angina Characteristics as Predictors of Trajectories of Quality of Life Following Acute Coronary Syndrome in the Transitions, Risks and Actions in Coronary Events-Center for Outcomes Research and Education Cohort (TRACE-CORE)
Lisa Nobel¹, Jennifer Tjia², Jane Saczynski², Molly E. Waring¹, Milena D. Anatchkova¹, Arlene Ash¹, Catarina Kiefe¹, Jeroan Allison¹
¹Department of Quantitative Health Sciences, ²Geriatrics Medicine, University of Massachusetts Medical School

62. Lipoaspirate and Adipose Stem Cells as Potential Therapeutics for Chronic Scars
Dylan Perry, BA¹; Jorge Lujan-Hernandez, MD¹; Michael Chin, MD¹; So Yun Min²; Ava Chappell, BA¹; Raziel Rojas-Rodriguez¹; Raghu Appasani, BA¹; Patrick Teebagy, BA¹; Silvia Corvera, MD²; Janice F. Lalikos, MD¹
¹Division of Plastic Surgery, Department of Surgery, ²Program in Molecular Medicine, University of Massachusetts Medical School

63. Predisposed Health Conditions of Children Exposed to Methamphetamine In Utero
Seth Peters, MPH
Ph.D. student, 1st Faculty of Medicine, Charles University, Prague Czech Republic

64. Rational Design of an Epitope-Based Hepatitis C Virus Vaccine
Brian G. Pierce, PhD¹, Elisabeth Boucher, BS², Monir Ejemel, BS², William D. Thomas Jr., PhD², Zhiping Weng, PhD³, Yang Wang, MD, PhD²
¹University of Maryland Institute for Bioscience and Biotechnology Research, Rockville, MD,
²MassBiologics of the University of Massachusetts Medical School, ³Program in Bioinformatics and Integrative Biology, University of Massachusetts Medical School

65. Advanced MRI Center: A 3 Tesla Magnetic Resonance System for Preclinical, Translational and Clinical Imaging Studies
Letterio S. Politi, MD, Shaokuan Zheng, PhD, Matthew J. Gounis, PhD
Advanced MRI Center and Department of Radiology, University of Massachusetts Medical School

66. The Effect of Oral Antibiotic’s on the Development of Community Acquired Clostridium Difficile Colitis in Medicare Beneficiaries
Charles M. Psoinos, MD, Courtney E. Collins, MD, M. Didem Ayturk, MS, Julie M. Flahive, MS, Frederick A. Anderson Jr., PhD, Heena P. Santry, MD, MS, FACS
Department of Surgery, University of Massachusetts Medical School

67. The Therapeutic Effects of per os Artemisinin Delivered as Dried Leaf Artemisia annua vs. Artesunate in Non-small Cell Lung Cancer
Dina Rassias¹, Pamela Weathers¹,²
¹Department of Biomedical Engineering, ²Department of Biology and Biotechnology, Worcester Polytechnic Institute

68. Immune Features that Afford Protection from Clinical Disease Versus Sterilizing Immunity to Bordetella pertussis Infection in a Nonhuman Primate Model of Whooping Cough
Keith A. Reimann, DVM¹, Aaron J. Belli, BS¹, Sarah Fulco, BS¹, Jason M. Warfel, PhD², Rijian Wang, MD, PhD¹, Lisa A. Cavacini, PhD¹, James F. Papin, PhD³ Tod J. Merkel, PhD², Mark S. Klempner, MD¹
¹MassBiologics of the University of Massachusetts Medical School, ²Division of Bacterial, Parasitic, and Allergenic Products, Center for Biologics Evaluation and Research, Food and Drug Administration, Bethesda, MD, ³University of Oklahoma Health Sciences Center, Oklahoma City, OK

69. Contemporary Analysis of Malignancies in Women of Child-Bearing Age: An NSQIP Analysis
Eva Rouanet, MSII, Ann-Kristin Friedrich, MD, Kate Dinh, MD, Kevin P. Baratta, MD, MPH, Giles F. Whalen, MD, FACS, Heena Santry, MD, FACS, Jennifer LaFemina, MD, FACS
University of Massachusetts Medical School
70. Collecting Histories of Education and Employment Activities from Young Adults with Serious Mental Health Conditions
Kathryn Sabella, MA, Peter Bui, BA, Laura Golden, BA, Kathleen Biebel, PhD
Transitions Research and Training Center, Systems of Psychosocial Advance Research Center, Department of Psychiatry, University of Massachusetts Medical School

71. Show Back: Evaluation of Scoresheet for Identifying Self-Management Medication Problems of Older Adults
Laura Sandford, BS1,2, Janice B. Foust, PhD, RN3, Maureen Sarno, RN, BSN4, Alok Kapoor, MD, MSc1,2
1University of Massachusetts Medical School, 2Meyers Primary Care Institute, 3University of Massachusetts Boston, College of Nursing and Health Sciences, 4VNA Care Network and Hospice

72. Effect of Left Atrial Function Index on Late Atrial Fibrillation Recurrence after Pulmonary Vein Isolation
Mayank Sardana, MBBS, Owusu Asamoah, MD, Glenn Stokken, MD, Matthew Spring, Amir Shaikh, MD, Adedotun Ogunsua, MD, Barinder Hansra, MD, Deeqo Mohamud, MD, Michael Gagnier, MD, Summer Aldrugh, MD, Nada Esa, MD, Kevin C. Floyd, MD, Clifford Browning, MD, Cynthia Ennis, DO, J. Kevin Donahue, MD, Lawrence S. Rosenthal, MD, Gerard P. Aurigemma, MD, Dave D. McManus, MD
University of Massachusetts Medical School

73. Identification of Fully Human Monoclonal Antibodies Against the Adhesin Domain of Colonizing Factor Antigen I of Escherichia coli
Maja Sedic, PhD1, Danielle Wisheart, BS1, Monir Ejemel, BS1, Matteo Stoppato, PhD1, Serena Giuntini, PhD1, Eileen M. Barry, PhD2, William D. Thomas Jr., PhD1, Mark S. Klempner, MD1, Yang Wang, MD PhD1
1MassBiologics of the University of Massachusetts Medical School, 2University of Maryland Baltimore, Center for Vaccine Development, Baltimore, Maryland

74. 5-Hydroxymethylcytosine Immunohistochemical Staining Correlates with Overall Survival in Patients with Chronic Myelomonocytic Leukemia
William Selove, MD, Karen Dresser BS, HT(ASCP), Benjamin J. Chen, MD, PhD
Department of Pathology, University of Massachusetts Medical School

75. Association between First Trimester Pregnancy Associated Plasma Protein–A and the Development of Gestational Diabetes Mellitus
Aylin Sert, MEd1, Katherine Leung, MPH2, Molly E. Waring, PhD2,3,4, Raziel Rojas-Rodriguez4,5, Silvia Corvera, MD4,5, Tiffany A. Moore Simas, MD MPH MEd2,4,6
1Clinical Translational Research Pathway, 2Division of Research, Department of Obstetrics & Gynecology, 3Department of Quantitative Health Sciences, 4Graduate School of Biomedical Sciences, 5Program in Molecular Medicine, 6Department of Pediatrics, University of Massachusetts Medical School/UMass Memorial Health Care

76. Structural and Molecular Analysis of a Protective Epitope of Lyme Disease Antigen OspA and Antibody Interactions
Shivender Shandilya, PhD1, Nese KurtYilmaz, PhD1, Ejemel Monir, BS2, Andrew Sadowski, BS2, William D. Thomas, Jr., PhD2, Mark S. Klempner, MD2, Celia A. Schiffer, PhD1, Yang Wang, MD, PhD2
1Biochemistry and Molecular Pharmacology, University of Massachusetts Medical School, 2MassBiologics of the University of Massachusetts Medical School

77. Microfluidic Platforms to Study Host-microbiome Interactions
Abhinav Sharma, MS, Neil Forbes, PhD, Jungwoo Lee, PhD
Department of Chemical Engineering, Institute for Applied Life Sciences, University of Massachusetts Amherst
78. A Pilot Study to Assess the Feasibility, Safety and Acceptability of Soy-based Diet for Pregnant Women at High Risk for Gestational Diabetes Mellitus
Ling Shi¹, Vidya Iyer², Emily Jones¹, Errol Norwitz², Tiffany A. Moore Simas³, Alice H. Lichtenstein⁴, Laura L. Hayman¹
¹University of Massachusetts Boston, ²Tufts Medical Center, ³University of Massachusetts Medical School, ⁴JM USDA Human Nutrition Research Center on Aging, Tufts University

79. Sedentary Behavior and Cardiovascular Disease Risk Factors among Latino Adults
Valerie J. Silfee, PhD¹, Stephenie C. Lemon, PhD¹, Vilma Lora², Milagros C. Rosal, PhD¹
¹Division of Preventive and Behavioral Medicine, Department of Medicine, University of Massachusetts Medical School, ²Director of Social Justice Initiatives, YWCA of Greater Lawrence; Health Task Force Coordinator, City of Lawrence Mayor’s Health Task Force

80. Interrogating Plant Cell Culture Library for Novel Antimicrobial Agents
John Solitro¹, Yong Zhang¹, Vanessa Bartolo¹, Alexander Popchuk¹, Sergey Savinov¹, Li-Jun Ma¹, Jennifer Normanly¹, Tristram Seidler², Elizabeth Vierling¹
¹Department of Biochemistry and Molecular Biology, ²Biology Department, University of Massachusetts Amherst

81. Can Physician Champions Improve Kangaroo Care? Trends over 5 Years in Rural Western India
Apurv Soni¹, Amee Amin², Dipen Patel², Nisha Fahey³, Nikhil Shah², Ajay Phatak², Jeroan Allison¹, Somashekar Nimbalkar²
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82. Microengineering Approaches for Regenerative Medicine
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83. Characterization of Neutrophils and Macrophages from ex vivo Cultured Murine Bone Marrow for Morphologic Maturation and Functional Responses by Imaging Flow Cytometry
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84. Reprogramming of mTOR Signaling by Perinatal Exposure to Brominated Flame Retardant
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85. Multiple Chronic Conditions and Psychosocial Limitations in a Contemporary Cohort of Patients Hospitalized with an Acute Coronary Syndrome
Mayra Tisminetzky, MD, PhD¹,², Jerry Gurwitz, MD¹,²,³, David D. McManus, MD, ScM¹,²,³, Jane S. Saczynski, PhD¹,²,³, Molly E. Waring, PhD¹, Nathaniel Erskine, BA¹, Milena Anatchkova, PhD¹, David C. Parish, MD, MPH¹, Darleen Lessard, MS¹, Catarina Kiefe, PhD, MD¹, Robert Goldberg, PhD¹,²,³
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86. Impact of Multimorbidity on Clinical Outcomes in Older Adults with Cardiovascular Disease
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87. Triad of Suffering: Pain, Depression, and Anxiety among Newly Admitted Nursing Homes Residents
Christine M. Ulbricht, PhD\textsuperscript{1}, Jacob N. Hunnicutt, MPH\textsuperscript{2}, Kate L. Lapane, PhD\textsuperscript{1,2}
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88. Role of TSH and Excess Heart Age in Predicting Atrial Fibrillation Recurrence Post-Ablation
Aditya Vaze, MD\textsuperscript{1}, Adedotun Ogunsua, MD\textsuperscript{1}, Jakub Pach, MD\textsuperscript{1}, David McManus, MD\textsuperscript{1,2}
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89. Targeted Combination Treatment for Glioblastoma Multiforme (GBM) Using Polymeric Nanoparticle
Praveena Velpurisiva, MS\textsuperscript{1}, Michael J. Tilton, BS\textsuperscript{2}, Brandon Piel, BS\textsuperscript{2}, Prakash Rai, PhD\textsuperscript{3,4}
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90. Pre-exposure Prophylaxis with OspA-specific Human Monoclonal Antibodies Protects Mice Against Tick Transmission of Lyme Disease Spirochetes
Yang Wang, MD PhD\textsuperscript{1}, Aurélie Kern, PhD\textsuperscript{2}, Naomi K. Boatright, BS\textsuperscript{1}, Zachary Schiller, BS\textsuperscript{1}, Andrew Sadowski, BS\textsuperscript{1}, Monir Ejemel, BS\textsuperscript{1}, Colby A. Souders, PhD\textsuperscript{1}, Keith A. Reimann, DVM\textsuperscript{1}, Linden Hu, MD\textsuperscript{2}, William D. Thomas, Jr., PhD\textsuperscript{1}, Mark S. Klempner, MD\textsuperscript{1}
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91. Differences in Complication Rates Between Roux-en-Y Gastric Bypass and Longitudinal Sleeve Gastrectomy
Zachary Weitzner, Julie Flahive, Gordon Fitzgerald, Donald Czerniach, MD, Philip Cohen, MD, John Kelly, MD, Richard Perugini, MD
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92. Comparison of Diabetic Remission Rates following Roux en-Y Gastric Bypass and Longitudinal Sleeve Gastrectomy
Zachary Weitzner, Julie Flahive, Gordon Fitzgerald, Donald Czerniach, MD, Philip Cohen, MD, John Kelly, MD, Richard Perugini, MD
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93. Text Mining From Drug Surveillance Report Narratives
Susmitha Wunnava, MS\textsuperscript{1}, Tabassum Kakar, BS\textsuperscript{1}, Xiao Qin, MS\textsuperscript{1}, Prof. Elke A. Rundensteiner, PhD\textsuperscript{1}
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94. Airway Smooth Muscle Pathology in Pompe Disease
Lang Xiong\textsuperscript{1,2}, Allison M. Keeler\textsuperscript{1,2}, Donghai Liu\textsuperscript{1}, Kaitlyn V. Desrosiers\textsuperscript{1,2}, Ronghua Zhuge\textsuperscript{3}, Mai K. ElMallah\textsuperscript{1,2}
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95. Statistical Analysis for Hospital Length-of-Stay and Readmission Rate Study
Hong Yan\textsuperscript{1}, Shaheryar F Ansari\textsuperscript{3}, Jian Zou\textsuperscript{1}, Robert M. Worth\textsuperscript{2,3,4}, Nicholas M. Barbaro\textsuperscript{3,4}
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96. Rapid Diagnostics for Infectious Disease Using Noble Metal Nanoparticles
Chun-Wan Yen, PhD, Helena de Puig MS, Justina O. Tam, PhD, José Gómez-Márquez, Irene Bosch, PhD, Lee Gehrke, PhD, Kimberly Hamad-Schifferli, PhD
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97. Structural Activity Relationship Study on Dual PLK1 /BRD4 Inhibitor, BI-2536
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98. Optimization of the Design of an Amphiphilic Biodegradable Polymer for Tissue-engineering Application
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99. A Non-Restrictive Weight Loss Diet Focused on Increasing Fiber and Lean Protein: Results of a Pilot Trial
Lijuan Zhang, Sherry L. Pagoto, Barbara C. Olendzki, Gioia Persuitte, Linda C. Churchill, Jessica Oleski, Yunsheng Ma
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100. Prenylated Retinal Ciliopathy Protein RPGR Regulates Ciliary Localization of Joubert Syndrome-Associated Protein INPP5E in Cooperation with PDE6δ
Wei Zhang, PhD, Kollu N. Rao, PhD, Linjing Li, PhD, Manisha Anand, MA, Hemant Khanna, PhD
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101. Translating Comparative TJR Outcomes for Performance Improvement to Guide Surgical Quality Improvement
Hua Zheng, PhD, Wenjun Li, PhD, Celeste Lemay, RN, MPH, David Ayers, MD, Patricia Franklin, MD, MBA, MPH
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