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, MPH², Luis M. Falcón, PhD³, 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 ω-6 and ω-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, BA1, Hoang Tran, MD, MPH1, Leonard L. Levin, MS, LIS, MA2, Christine M. Ulbricht, PhD, MPH1, Joyce D. Fingeroth, MD3, Catarina I. Kiefe, PhD, MD1, Robert J. Goldberg, PhD1,4
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. Flotte1,2, Christian Mueller1,2, Gwladys Gernoux3, Alisha M. Gruntman1,3, Jeffery Chulay4, Dave Knop4, Noel G. McElvaney5, Martha Campbell-Thompson6, James M. Wilson7
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. Frendl1, Mara M. Epstein2,3, Hassan Fouayzi1, Richard Krajen1,4, Benjamin A. Rybicki1, Mitchell H. Sokoloff6
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; 6Department 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, MS1, Michael Tilton, BS2, Brandon Piel BS2, Prakash Rai, PhD1,3
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 Gao1, Huihui Ye2, Sean Gerrin3, Hongyun Wang4, Ankur Sharma5, Sen Chen6, Akash Patnaik7, Adam G. Sowalsky8, Olga Voznesensky9, Wanting Han1, Ziyang Yu3, Elahe Mostaghel9, Peter S. Nelson10, Mary-Ellen Taplin11, Steven P. Balk12, Changmeng Cai1
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, PhD³, 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, ³Department of Preventive and Behavioral 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 Chulay, 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,  
³Entrepreneurship 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. Umnov², 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, MPH4, 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 Circumsporozoite 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 Szczynski2, 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 Teebgy, 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. Cacvaci, 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 MEdd,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 Shi\(^1\), Vidya Iyer\(^2\), Emily Jones\(^1\), Errol Norwitz\(^2\), Tiffany A. Moore Simas\(^3\), Alice H. Lichtenstein\(^4\), Laura L. Hayman\(^1\)
\(^1\)University of Massachusetts Boston, \(^2\)Tufts Medical Center, \(^3\)University of Massachusetts Medical School, \(^4\)JM USDA Human Nutrition Research Center on Aging, Tufts University

79. Sedentary Behavior and Cardiovascular Disease Risk Factors among Latino Adults
Valerie J. Silfee, PhD\(^1\), Stephenie C. Lemon, PhD\(^1\), Vilma Lora\(^2\), Milagros C. Rosal, PhD\(^1\)
\(^1\)Division of Preventive and Behavioral Medicine, Department of Medicine, University of Massachusetts Medical School, \(^2\)Director 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 Solitro\(^1\), Yong Zhang\(^1\), Vanessa Bartolo\(^1\), Alexander Popchuk\(^1\), Sergey Savinov\(^1\), Li-Jun Ma\(^1\), Jennifer Normanly\(^1\), Tristram Seidler\(^2\), Elizabeth Vierling\(^1\)
\(^1\)Department of Biochemistry and Molecular Biology, \(^2\)Biology Department, University of Massachusetts Amherst

81. Can Physician Champions Improve Kangaroo Care? Trends over 5 Years in Rural Western India
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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
Klaudia Szymczak, MS\(^1\), Margery G.H. Pelletier, MS\(^1\), Anna M. Barbeau\(^2\), Kevin O’Fallon, PhD\(^3\), Peter Gaines, PhD\(^1,2\)
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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, PhD\(^1,2\), Jerry Gurwitz, MD\(^1,2,3\), David D. McManus, MD, ScM\(^1,2,4\), Jane S. Saczynski, PhD\(^1,2,3\), Molly E. Waring, PhD\(^1\), Nathaniel Erskine, BA\(^1\), Milena Anatchkova, PhD\(^1\), David C. Parish, MD, MPH\(^1\), Darleen Lessard, MS\(^1\), Catarina Kiefe, PhD, MD\(^1\), Robert Goldberg, PhD\(^1,2,4\)
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86. Impact of Multimorbidity on Clinical Outcomes in Older Adults with Cardiovascular Disease
Mayra Tisminetzky, MD, PhD\(^1,2,3\) Robert Goldberg, PhD\(^1,2,4\) , Jerry Gurwitz, MD\(^1,2,3\)
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87. **Triad of Suffering: Pain, Depression, and Anxiety among Newly Admitted Nursing Homes Residents**  
Christine M. Ulbricht, PhD1, Jacob N. Hunnicutt, MPH2, Kate L. Lapane, PhD1,2  
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88. **Role of TSH and Excess Heart Age in Predicting Atrial Fibrillation Recurrence Post-Ablation**  
Aditya Vaze, MD1, Adeodotun Ogunsea, MD1, Jakub Pach, MD1, David McManus, MD1,2  
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89. **Targeted Combination Treatment for Glioblastoma Multiforme (GBM) Using Polymeric Nanoparticle**  
Praveena Velpurisiva, MS1, Michael J. Tilton, BS2, Brandon Piel, BS2, Prakash Rai, PhD3,4  
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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 PhD1, Aurélie Kern, PhD2, Naomi K. Boatright, BS1, Zachary Schiller, BS1, Andrew Sadowski, BS1, Monir Ejemel, BS1, Colby A. Souders, PhD1, Keith A. Reimann, DVM1, Linden Hu, MD2, William D. Thomas, Jr., PhD1, Mark S. Klempner, MD1  
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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  
Department of Surgery, University of Massachusetts Medical School

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, MS1, Tabassum Kakar, BS1, Xiao Qin, MS1, Prof. Elke A. Rundensteiner, PhD1  
1Department of Computer Science, Worcester Polytechnic Institute

94. **Airway Smooth Muscle Pathology in Pompe Disease**  
Lang Xiong1,2, Allison M. Keeler1,2, Donghai Liu3, Kaitlyn V. Desrosieres1,2, Ronghua Zhuge3, Mai K. ElMallah1,2  
1Horae Gene Therapy Center, 2Department of Pediatrics, 3Department of Microbiology and Physiological Systems, University of Massachusetts Medical School

95. **Statistical Analysis for Hospital Length-of-Stay and Readmission Rate Study**  
Hong Yan1, Shaheryar F Ansari3, Jian Zou1, Robert M. Worth2,3,4, Nicholas M. Barbaro3,4  
1Worcester Polytechnic Institute Department of Mathematical Sciences, 2Indiana University Department of Mathematical Sciences, 3Indiana University Department of Neurological Surgery, 4Goodman Campbell Brain and Spine
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
Hailemichael Yosief, Shuai Liu, Dennis L. Buckley, Justin M. Roberts, Alex M. Muthengi Francesca M. Corsini, Bradner E. James and Wei Zhang
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98. Optimization of the Design of an Amphiphilic Biodegradable Polymer for Tissue-engineering Application
Ben Zhang, PhD, Tera Filion, PhD, Jie Song, PhD
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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 Pursuitte, 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
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