May 20th, 8:00 AM

Poster Program: 2014 UMass Center for Clinical and Translational Science Research Retreat

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POSTER PRESENTATIONS
Faculty Conference Room S1-342, 1st Floor Medical School Entrance
12:30 – 2:30 pm

1. Targeted Destruction of Triple Negative Breast Cancer using Nanoparticles
   Adeyinka C. Adejumo¹, Chinedu Charles Ochin¹, Rahul Jadia², Fulya Ekiz Kanik¹, Ikjot Singh Sohal³,
   Prakash Rai¹,²,³,⁴
   ¹Biomedical Engineering and Biotechnology Program, ²Department of Plastics Engineering, ³Department of
   Biological Sciences, ⁴Department of Chemical Engineering, University of Massachusetts Lowell

2. A pH Stable Turn-on Fluorescent Sensor for Imaging Labile Fe³⁺ in Living Cells
   Bayan Alhawsah, Ziya Aydin, Bing Yang, Maolin Guo
   Department of Chemistry and Biochemistry, University of Massachusetts Medical School

3. Development of Novel Class of Therapeutic Oligonucleotides Based on Small Molecule Screening
   Julia Alterman, Hong Cao, Marie Didiot, Mehran Nikan, Matthew Hassler, Anastasia Khvorova
   RNA Therapeutics Institute, Program in Molecular Medicine, Small Molecule Screening Core, Department
   of Biochemistry & Molecular Pharmacology, University of Massachusetts Medical School

4. Providing an Adaptive Research Data Infrastructure for Clinical and Translational Investigators
   Bill Amsbaugh, Steven Ellis, Yurima Guilarte-Murphy, Tyrone Jones, Robert Leonard, Paul Ranauro
   University of Massachusetts Medical School

5. Psychometric Evaluation of the Care Transition Measures in a Sample of ACS Patients: Results
   from Transitions, Risks, and Actions in Coronary Events – Center for Outcomes Research and
   Education (TRACE-CORE)
   Milena D. Anatchkova, PhD¹, Constance Barysaukas, MS², Rebecca L. Kinney, MPH¹, Lisa Lombardini,
   BS¹, Jeroan J. Allison, MD¹
   ¹Department of Quantitative Health Sciences, University of Massachusetts Medical School; ²Department of
   Biostatistics and Computational Biology, Dana Farber Cancer Institute, Harvard Medical School

6. Psychosocial Factors Predict Patient Ratings of Care Transition Quality: Results from Transitions,
   Risks, and Actions in Coronary Events – Center for Outcomes Research and Education (TRACE-
   CORE)
   Milena D. Anatchkova¹, Jane S. Saczynski², Jeroan J. Allison¹, Arlene S. Ash¹, Catarina I. Kiefe¹
   ¹Department of Quantitative Health Sciences, ²Department of Medicine, University of Massachusetts
   Medical School

7. Severity of Infectious Mononucleosis (IM) Correlates with the Frequency of Crossreactive Influenza
   A Virus (IAV)-M1 and Epstein Barr Virus (EBV)-BMLF-1-specific CD8 T Cells
   Nuray Aslan¹, Levi Watkin¹, Anna Gil¹, Katherine Luzuriaga², Liisa K. Selin¹
   ¹Department of Pathology, ²Department of Pediatrics, University of Massachusetts Medical School
8. Utilization of Molecular Inversion Probes in Malaria Sequencing
Özkan Aydemir¹, Alice Tran¹, Yasin Kaymaz¹, Nicholas J. Hathaway¹, Jeffrey A. Bailey¹,²
¹Program in Bioinformatics and Integrative Biology ²Division of Transfusion Medicine, University of Massachusetts Medical School

9. Perfusion Changes by Hyperspectral Imaging in a Burn Model
Oksana O. Babchenko, BS, Michael S. Chin, MD, Jorge R. Lujan-Hernandez, MD, Heather Strom, MS, Ronald Ignotz, PhD, Janice F. Lalikos, MD
Division of Plastic and Reconstructive Surgery, University of Massachusetts Medical School

10. Detection of CD8+ T cell Responses in Individuals with Long-term Type 1 Diabetes and Generation of Human CD8+ T Cell Lines Specific to Islet-associated Autoantigens
Jenny Aurielle B. Babon, David M. Harlan, Sally C. Kent
Diabetes Center of Excellence, University of Massachusetts Medical School
Perfusion Changes by Hyperspectral Imaging in a Burn Model

11. Mice Deficient in SFRP1 Exhibit Increased Adiposity, Dysregulated Glucose Metabolism
Lotfi M. Bassa, Kelly J. Gauger, Elizabeth M. Henchey, Melissa Brown, Sallie S. Schneider
Department of Veterinary and Animal Science, University of Massachusetts Amherst, Pioneer Valley Life Science Institute, Springfield, MA

12. An In Vitro Model of the Horse Gut Microbiome Enables Identification of Lactate-Utilizing Bacteria That Differentially Respond to Starch Induction
Amy S. Biddle¹, Samuel J. Black², Jeffrey L. Blanchard³,⁴,⁵
¹Department of Microbiology, ²Department of Veterinary and Animal Science, ³Graduate Program in Molecular and Cellular Biology, ⁴Department of Biology, ⁵Graduate Program in Organismal and Evolutionary Biology, University of Massachusetts Amherst

13. Functional Response to Pain and its Treatment in Knee Osteoarthritis
Katherine A. Boyer
Department of Kinesiology, University of Massachusetts Amherst

14. Topical Anti-TNF-α Antibody Enhances Wound Healing in Diabetic Mice
Genevieve Broderick, MD, Heather Strom, MS, Ronald A. Ignotz, PhD
Division of Plastic and Reconstructive Surgery, University of Massachusetts Medical School

15. Is African-American Girls’ Perception of their Mother-Daughter Relationship Associated to Psychosocial and Physical Activity Variables?
Sarah Burkart, Brett Winner, Cory Greever, Sofiya Alhassan, PhD, FACSM
University of Massachusetts Amherst

16. Multiscale Entropy Identifies Postural Control Changes in Persons with Multiple Sclerosis
Michael A. Busa, Stephanie L. Jones, Richard E.A. van Emmerik
University of Massachusetts Amherst

17. Targeted Mutagenesis of a Therapeutic Human Monoclonal IgG1 Antibody Prevents Gelation at High Concentrations
Paul Casaz, Elisabeth Boucher, Rachel Wollacott, Sadettin Ozturk, William Thomas, Jr., Yang Wang
MassBiologics of the University of Massachusetts Medical School

18. Helping Children Through Evidence-based Trauma Treatments, Initial Findings from the Massachusetts Child Trauma Project (MCTP)
Rachel Caty, BS¹, Charmaine Lo, PhD, MPH², Melodie Wenz-Gross, PhD¹, Robert Wentworth, MSW, LCSW²
¹Center for Mental Health Services Research, Department of Psychiatry, University of Massachusetts Medical School; ²Planning and Program Development, Department of Children and Families; Boston, MA
19. Visually Guided Inter-limb Adaptation During Walking In Children And Adults
   Julia T Choi¹,², Peter Jensen², Jens Bo Nielsen²
   ¹University of Massachusetts, Amherst, MA USA; ²University of Copenhagen, Denmark

20. Therapeutic Monoclonal Antibodies to Prevent Tuberculosis Infection
   Andrew Crowley¹, Chloé Emery¹, Gregory Martens¹, Megan Proulx², Jon Gougen², Christopher Sassetti², Colby A Souders¹
   ¹Department of Product Delivery, MassBiologics of the University of Massachusetts Medical School; ²Department of Microbiology and Physiological Systems, University of Massachusetts Medical School

21. Networks Fighting Nicotine: Will Visitors to a Tobacco Cessation Website Engage in an Online Support Community?
   Sarah L Cutrona¹, Rajani Sadasivam¹, Kathryn DeLaughter¹, Gregg H Gilbert⁴, Midge N Ray³, Thomas Houston¹,², *National Dental PBRN Collaborative Group
   ¹University of Massachusetts Medical School; ²VA eHealth QUERI and CHOIR, Bedford, MA; ³Department of Health Services Administration, School of Health Professions, University of Alabama at Birmingham, Birmingham, AL; ⁴Department of Clinical & Community Sciences, School of Dentistry, University of Alabama at Birmingham, Birmingham, AL; *The National Dental PBRN Collaborative Group Comprises practitioners, faculty and staff who contributed to this activity.

22. Clinical and Financial Impact of Readmissions Following Colorectal Resection: An Analysis of Predictors, Outcomes, and Cost
   Rachelle N. Damle, MD¹, Nicole B. Cherng, BS², Julie M. Flahive, MS³, Jennifer S. Davids, MD⁴, Justin A. Maykel, MD, FACS⁴, Paul R. Sturrock, MD⁴, W. Brian Sweeney, MD, FACS⁴, Karim Alavi, MD, FACS⁴
   ¹Department of Surgery, ²University of Massachusetts Medical School, ³Center for Outcomes Research, ⁴Division of Colorectal Surgery, University of Massachusetts Medical Center

23. A Soft Robotic Exomusculature Glove with Integrated sEMG sensing for Hand Rehabilitation
   Michael Delph, Christopher Nycz, Gregory Fischer
   Automation and Interventional Medicine (AIM) Laboratory, Health Care Delivery Institute at Worcester Polytechnic Institute

24. Silencing DUX4 Expression in FSHD Cells by CRISPR
   Alec DeSimone¹, Peter Jones¹, Michael Broadsky¹, Kathryn Wagner², Genila Bibat², and Charles P. Emerson Jr.¹
   ¹Wellstone Center for FSHD Research, University of Massachusetts Medical School; ²Center for Genetic Muscle Disorders, Kennedy Krieger Institute, Johns Hopkins School of Medicine, Baltimore, MD

25. Sentinel Lymph Node Biopsy Does Not Improve Disease-Specific Survival in Elderly Patients with Intermediate Thickness Melanoma
   Kate H. Dinh, MD¹, Mary Maloney, MD², Dori Goldberg, MD², April Deng, MD³, Mary Sullivan, NP¹, Laura Lambert, MD¹, Giles Whalen, MD¹, Jennifer LaFemina, MD¹
   ¹Department of Surgery, ²Division of Dermatology, ³Department of Pathology; University of Massachusetts Medical School

   Natasha Dolgin, BA, Paulo N. Martins, MD, PhD, Gordon Fitzgerald, PhD, Robert Goldberg, PhD, Fred Anderson, PhD, Adel Bozorgzadeh, MD
   Department of Surgery, University of Massachusetts Medical School

27. Robotics Enabled In-Home Environment Screening for Fall Risks
   Ruixiang Du¹, Vinayak Jagtap¹, Taskin Padir¹, Rajani Sadasivam², Thomas Houston²
   ¹Robotics Engineering Program, Worcester Polytechnic Institute; ²Department of Quantitative Health Science, University of Massachusetts Medical School
28. Antineoplastic Effects of *Rhodiola crenulata* on B16F10 Melanomas
   Maxine Dudek, Richard B. Arenas, Kaitlyn Wong, Carmen Mora, Lotfi Bassa, Sallie S. Schneider
   University of Massachusetts Amherst and Baystate Medical Center

29. Patient-focused Websites Related to Stress Urinary Incontinence and Pelvic Organ Prolapse: a DISCERN Quality Analysis
   Omar F. Duenas, Katharine O’Dell, Danielle Patterson, Padmasini Kandadai, Jyot Saini, Michael K. Flynn
   Urogynecology Division, Department of Obstetrics and Gynecology, University of Massachusetts Medical School

30. Activin Limits Progenitor Capability by Promoting Epithelial Cell Differentiation in the Mammary Gland
   Karen A. Dunphy1,2, Thiruppavai Chandrasekaran1, Niraj Bhatt1, Michelle Chen1, Amy L. Roberts1,2, Mary Hagen1, and D. Joseph Jerry1,2
   1University of Massachusetts Amherst; 2Pioneer Valley Life Sciences Institute, Springfield, MA

31. Effects of Increased Utilization of CVD Medications by Medicare Beneficiaries on Spending Vary by CVD Status
   Hassan Fouayzi, MS1, Arlene S. Ash, PhD2, Allison B. Rosen, MD, MPH, ScD2
   1Meyers Primary Care Institute (Reliant Medical Group, Fallon Community Health Plan, and University of Massachusetts Medical School); 2Quantitative Health Sciences, University of Massachusetts Medical School

32. The Health Effects of Increased CVD Medication use Varies by CVD Status of Medicare Beneficiaries
   Hassan Fouayzi, MS1, Arlene S. Ash, PhD2, Allison B. Rosen, MD, MPH, ScD2
   1Meyers Primary Care Institute (Reliant Medical Group, Fallon Community Health Plan, and University of Massachusetts Medical School); 2Quantitative Health Sciences, University of Massachusetts Medical School

33. Predictors of Patient-reported Outcomes after TKR not Included in Risk Models Based on Administrative Data
   Patricia D. Franklin, MD, MBA, MPH1, Leslie Harrold, MD, MPH1, Wenjun Li, PhD2, Courtland Lewis, MD4, Jeroan Allison, MD, MS3, David Ayers, MD1
   1Department of Orthopedics and Physical Rehabilitation, 2Department of Preventive and Behavioral Medicine, 3Department of Quantitative Health, University of Massachusetts Medical School; 4Hartford Hospital, Hartford CT

34. Differences in Patient Characteristics Prior to TKA and THA Between Switzerland and the US
   Patricia D. Franklin, MD, MBA, MPH1, Leslie Harrold, MD, MPH1, Hermes Miozzari, MD2, Pierre Hoffmeyer, MD2, David Ayers, MD1, Anne Lübbeke, MD2
   1Department of Orthopedics and Physical Rehabilitation, University of Massachusetts Medical School; 2Université de Genève, Genève, Switzerland

35. Getting to the Root of Bacterial Hairs: What is “s”?
   Rebecca Gaddis1, Samantha O’Connor1, Evan Anderson1, Terri Camesano2, Nancy Burnham1,3
   1Department of Physics, 2Chemical Engineering, 3Biomedical Engineering, Healthcare Delivery Institute at Worcester Polytechnic Institute

36. Cup Feeding in the ICU: The Influence of Health Care Team Knowledge
   Sameh Ghareeb, Lisa Chiodo, Linda Lewandowski
   University of Massachusetts Amherst
37. Acute Symptomatic Influenza A Virus (IAV) Infection in Humans Leads to Expansion of Highly Diverse CD8 T Cell Repertoires Crossreactive with Persistent Epstein Barr Virus (EBV)
Anna Gil, Rabinarayan Mishra, Nuray Aslan, and Liisa K. Selin
Department of Pathology, University of Massachusetts Medical School

38. Objective Analysis of Preschoolers Physical Activity Patterns during Free Playtime
Cory Greever, MS, John Sirard, PhD, Sofiya Alhassan, FACSM
Pediatric Physical Activity Laboratory, University of Massachusetts Amherst

39. Fluorescent Probes for Molecular Imaging of ROS/RNS Species in Living Systems
Maolin Guo, Yibin Wei, Weiqi Yang, Xiaofei Fu, Yi Zhang, Bing Yan
Department of Chemistry and Biochemistry, University of Massachusetts Dartmouth

40. Improving Depression Screening and Diagnosis in a Diverse Urban University Health Service
Patricia A. Halon, DNP, FNP-C
University of Massachusetts Boston, College of Nursing and Health Sciences

41. The Validity of Patient-Reported Short-Term Complications following Total Hip and Knee Arthroplasty
Leslie Harrold, MD, MPH\textsuperscript{1}, Scott Pascal\textsuperscript{1}, David Ayers, MD\textsuperscript{1}, Courtland Lewis, MD\textsuperscript{2}, Regis O'Keefe, MD, PhD\textsuperscript{3}, Patricia D. Franklin, MD, MBA, MPH\textsuperscript{1}
\textsuperscript{1}Department of Orthopedics and Physical Rehabilitation, University of Massachusetts Medical School; \textsuperscript{2}Hartford Hospital, Hartford CT; \textsuperscript{3}University of Rochester School of Medicine, Rochester, NY

42. Do Younger TKR and THR Patients Have Similar Disability at Time of Surgery as Older Adults? Lessons from FORCE-TJR
Leslie Harrold, MD MPH\textsuperscript{1}, Wenjun Li, PhD\textsuperscript{2}, Courtland Lewis, MD\textsuperscript{4}, Jeroan Allison, MD, MS\textsuperscript{3}, David Ayers, MD\textsuperscript{1}, Patricia D. Franklin, MD, MBA, MPH\textsuperscript{1}
\textsuperscript{1}Department of Orthopedics and Physical Rehabilitation, \textsuperscript{2}Department of Preventive and Behavioral Medicine, \textsuperscript{3}Department of Quantitative Health Sciences, University of Massachusetts Medical School; \textsuperscript{4}Hartford Hospital, Hartford CT

43. Using Next-Gen Sequencing to Estimate Strain Diversity and Frequency within Infections
Nicholas J. Hathaway\textsuperscript{1}, Jeffrey A. Bailey\textsuperscript{1,2}
\textsuperscript{1}Program in Bioinformatics and Integrative Biology, \textsuperscript{2}Division of Transfusion Medicine, University of Massachusetts Medical School

44. A Context-Aware Activity Recommendation Smartphone Application to Mitigate Sedentary Lifestyles
Qian He, Emmanuel O. Agu
Healthcare Delivery Institute at Worcester Polytechnic Institute

45. Characterizing the Performance and Behaviors of Runners Using Twitter
Qian He, Emmanuel O. Agu, Diane M. Strong, Bengisu Tulu, Peder C. Pedersen
Healthcare Delivery Institute at Worcester Polytechnic Institute

46. Severity of Pre-existing Cerebral Small Vessel Disease is Associated with Outcome after Traumatic Brain Injury
Nils Henninger, MD\textsuperscript{1,2}, Saef Izzy, MD\textsuperscript{1}, Raphael Carandang, MD\textsuperscript{1,3}, Wiley Hall, MD\textsuperscript{1,3}, Susanne Muehlschlegel, MD, MPH\textsuperscript{1,3,4}
\textsuperscript{1}Departments of Neurology, \textsuperscript{2}Psychiatry, \textsuperscript{3}Surgery, \textsuperscript{4}Anesthesia/Critical Care, University of Massachusetts Medical School
47. Evaluation of Antibiotic Properties of Diarylhydrazones, Diaryl Schiff-bases and Their Precursors
William Horton¹, Kristina D’Amico¹, Stephanie Davis¹, Christian Schäfer¹, Gregory Beck², Béla Török¹,³
¹Department of Chemistry, ²Department of Biology, University of Massachusetts Boston; ³University of Massachusetts Center for Clinical and Translational Science

48. A Reconsideration of the Diagnosis and Management of Gastrointestinal Bleeding Based on its Epidemiology and Outcomes Analysis
Salmaan Jawaid¹, Neil Marya¹, Bilal Gondal¹, Louise Maranda², Christopher Marshall¹, Joseph Charpentier¹, Anupam Singh¹, Anne Foley¹, David Cave¹
¹Department of Internal Medicine, ²Departments of Medicine and Quantitative Health Sciences, University of Massachusetts Medical School

49. Enhancing Antibiotic Activity Using Nanomaterial-Antibiotic Conjugates
H. Surangi N. Jayawardena, Thareendra De Zoysa, Kalana W. Jayawardana, Scott T. Boiko, Mingdi Yan
Department of Chemistry, University of Massachusetts Lowell

50. Interactions of Carbohydrate-conjugated Nanoparticles with Mycobacterium Smegmatis
K. W. Jayawardana, H. S. N. Jayawardena, Thareendra De Zoysa, Mingdi Yan
Department of Chemistry, University of Massachusetts Lowell

51. Postural Stability is Reduced in People with Multiple Sclerosis due to Walking-imposed Fatigue
Stephanie L. Jones, Michael A. Busa, Julianna L. Averill, Richard E. A. van Emmerik
Motor Control Laboratory, Department of Kinesiology, University of Massachusetts Amherst

52. A Prospective Randomized Comparison of Patient Specific Instruments with Standard TKA Instrumentation
Christina Kane, MD, Anthony Porter, MD, Patricia Franklin, MD, MBA, MPH, David Ayers, MD
University of Massachusetts School of Medicine and UMass Memorial Medical Center

53. Radiostereometric Analysis of Femoral Head Penetration in Cross-Linked Polyethylene in THR Patients
Christina Kane, MD¹, Anthony Porter, MD¹, Benjamin Snyder, MD, MPH¹, Marie Walcott, MD¹, Michelle Aubin, MD¹, Jacob Drew, MD¹, Meridith Greene, BA², Henrik Malchau, MD², Charles Bragdon, PhD², David Ayers, MD²
¹University of Massachusetts School of Medicine and UMass Memorial Medical Center; ²Harris Orthopaedic Laboratory, Massachusetts General Hospital, Boston, MA

54. Radiostereometric Analysis of Tantalum vs. Titanium Acetabular Shells in Young THR Patients
Christina Kane, MD¹, Anthony Porter, MD¹, Benjamin Snyder, MD, MPH¹, Marie Walcott, MD¹, Michelle Aubin, MD¹, Jacob Drew, MD¹, Meridith Greene, BA², Henrik Malchau, MD², Charles Bragdon, PhD², David Ayers, MD²
¹University of Massachusetts School of Medicine and UMass Memorial Medical Center; ²Harris Orthopaedic Laboratory, Massachusetts General Hospital, Boston, MA

55. Stability of a Tapered Femoral Stem in Total Hip Arthroplasty using Radiostereometric Analysis
Christina Kane, MD¹, Audrey Nebergall, BA², Meridith Greene, BA², Anthony Porter, MD¹, Benjamin Snyder, MD, MPH¹, Marie Walcott, MD¹, Michelle Aubin, MD¹, Jacob Drew, MD¹, Peyton Heys, MD¹, Mark Eskander, MD¹, Henrik Malchau, MD², Charles Bragdon, PhD², David Ayers, MD¹
¹University of Massachusetts School of Medicine and UMass Memorial Medical Center; ²Harris Orthopaedic Laboratory, Massachusetts General Hospital, Boston, MA

56. High-throughput Genome Scaffolding from in vivo DNA Interaction Frequency
Noam Kaplan, Job Dekker
Program in Systems Biology, Department of Biochemistry and Molecular Pharmacology, University of Massachusetts Medical School
57. Low Self-Reported Physical Function Status Was an Excellent Predictor of Adverse Postoperative Course in Older Veterans Having Knee and Hip Surgery
Alok Kapoor1,2,3, Priscilla Chew2, Joel Reisman2, Dan Berlowitz1,2
1Section of General Internal Medicine, Boston University School of Medicine, Boston, MA; 2Center for Health Quality, Outcomes, and Economic Research, Edith Nourse Rogers Memorial Hospital, Bedford, MA; 3UMass Memorial Health Care, Worcester, MA

58. Differential Gene Expression Analysis and Clinical Correlations within Endemic Burkitt Lymphoma
Yasin Kaymaz1, Cliff Odour2, John Vulule2, Juliana A Otieno3, Ann M. Moormann4,5, Jeffrey A. Bailey1,6
1Program in Bioinformatics and Integrative Biology, University of Massachusetts Medical School; 2Kenyan Medical Research Institute and Maseno University, Kenya; 3Kenya Ministry of Health, Kenya; 4Department of Pediatrics, 5Quantitative Health Sciences, 6Department of Medicine, University of Massachusetts Medical School

59. High Performance Amphiphilic Polymer/Hydroxyapatite Composite Tissue Scaffolds
Artem Kutikov, Jie Song
Department of Orthopedics & Physical Rehabilitation, Department of Cell and Developmental Biology, University of Massachusetts Medical School

60. Pericyte NF-κB Activation Enhances Endothelial Cell Proliferation and Proangiogenic Cytokine Secretion
Katherine E. LaBarbera1, Robert D. Hyldahl2, Sarah Witkowski1
1Department of Kinesiology, University of Massachusetts Amherst; 2Department of Exercise Sciences, Brigham Young University, Provo, Utah

61. Testosterone Treatment Does Not Facilitate Prefrontal Cortex Mediated Cognition in Male Marmosets (callithrix jacchus)
Matthew LaClair1, Jeemin Chang2, Agnès Lacreuse2
1Neuroscience and Behavior Program, 2Department of Psychology, University of Massachusetts Amherst

62. Long-term Effects of Use of Prescription Non-steroidal Anti-inflammatory Agents on Symptoms and Disease Progression among Patients with Radiographically Confirmed Osteoarthritis of the Knee
Kate L. Lapane, PhD, MS1, Shbing Yang, MS2, Jeffrey B Driban, PhD3, Shao-Hsien Liu, MPH1, Catherine E. Dubé, EdD1, Timothy E. McAlindon, MD, MPH3, Charles B. Eaton, MD, MS4,5
1Department of Quantitative Health Sciences, University of Massachusetts Medical School; 2Division of Epidemiology, Department of Family Medicine and Population Health, Virginia Commonwealth University, Richmond, VA; 3Department of Rheumatology, Tufts Medical Center, Boston, MA; 4Center for Primary Care and Prevention, Memorial Hospital of Rhode Island, Pawtucket, RI; 5Departments of Family Medicine and Epidemiology, Warren Alpert Medical School, School of Public Health, Brown University, Providence, RI

63. Social Support and Total Joint Replacement: Differences Preoperatively between Patients Living Alone and Those Living with Others
Celeste Lemay, RN, MPH1, Leslie Harrold, MD, MPH1, Wenjun Li, PhD2, David Ayers, MD1, Patricia D. Franklin, MD, MBA, MPH1
1Department of Orthopedics and Physical Rehabilitation, 2Department of Preventive and Behavioral Medicine, University of Massachusetts Medical School

64. Modulation of Severity of RPGR-associated Retinal Degeneration in Mice due to Mutations in RPGR-interacting Proteins
Linjing Li1, Nageswara Rao Kollu1, Cecinio C. Ronquillo2, Wolfgang Baehr2, Hemant Khanna1
1Department of Ophthalmology, University of Massachusetts Medical School; 2Department of Ophthalmology and Visual Sciences, John A. Moran Eye Center, Salt Lake City, UT

65. Does Functional Gain and Pain Relief After TKR and THR Differ by Patient Obese Status?
Wenjun Li, PhD1, Jeffrey Lange, MD2, Leslie Harrold, MD, MPH1, Jeroan Allison, MD, MS3, Courtland Lewis, MD4, Thomas Bowen, MD5, David Ayers, MD2, Patricia D. Franklin, MD, MBA, MPH2
66. Creating Store and Community-Level Feedback Reports for Food Establishments to Support Nutrition Environment Improvement
Wenjun Li, PhD1, Kevin Kane, MS1, Ning Guo, MS1, Bonnie Andrews, MPH3, Andrea Pinzon-Marquardt, MPH3, Hyung-Joo Kang, MS1, Vijayalakshmi Patil, MS3, Barbara Olendzki, MPH, RD3
1Department of Preventive and Behavioral Medicine, 2Department of Orthopedics and Physical Rehabilitation, 3Department of Quantitative Health Sciences, University of Massachusetts Medical School; 4Hartford Hospital, Hartford CT; 5Geisinger Medical Center, Danville, PA

67. Risk of Recurrent Falls after Indoor and Outdoor Falls in the Elderly
Wenjun Li, PhD1, Hyung-joo Kang, MS1, Elizabeth Procter-Gray, PhD1, Marian Hannan, PhD2, Lewis Lipsitz, MD2
1Preventive and Behavioral Medicine, University of Massachusetts Medical School; 2Institute for Aging Research, Hebrew Senior Life

68. Racial Disparities in Emergency Department Mortality and Departure Status among Trauma Patients in Massachusetts
Wenjun Li, PhD1, Holly Hackman, MD, MPH2, Sylvia Hobbs, MPH5, Georgia Simpson May, MSM2, Iyah Romm, BS2, Hyung-Joo Kang, MS1, Vera Mouradian, PhD2, Timothy Emhoff, MD1, Hasan Alam, MD3, Jon Burstine, MD2, Selwyn Rogers, MD4
1University of Massachusetts Medical School; 2Massachusetts Department of Public Health; 3University of Michigan Medical School; 4Temple University School of Medicine; 5Massachusetts Center for Health Information and Analysis

69. Racial Disparities in In-hospital Mortality and Discharge Disposition among Trauma Patients in Massachusetts
Wenjun Li, PhD1, Sylvia Hobbs, MPH7, Holly Hackman, MD, MPH2, Turner Osler, MD3, Frederick Milham, MD3, Georgia Simpson May, PhD2, Hyung-Joo Kang, MS1, Kevin Kane, MS3, Heena Santry, MD1, Selwyn Rogers, MD5, Hasan Alam, MD6
1University of Massachusetts Medical School; 2Massachusetts Department of Public Health; 3University of Vermont Medical Center; 4Newton-Wellesley Hospital; 5Temple University School of Medicine; 6University of Michigan Medical School; 7Massachusetts Center for Health Information and Analysis

70. Modification of Ti6Al4V Substrates with Well-defined Zwitterionic Polysulfobetaine Brushes for Improved Surface Mineralization
Pingsheng Liu, Emily Domingue, David C. Ayers, Jie Song
Department of Orthopedics & Physical Rehabilitation, University of Massachusetts Medical School

71. Inhibition of Protein Tyrosine Phosphatase 1B by Polyphenol Natural Products: Relevant to Diabetes Management
Zhiwei Liu, Maolin Guo
UMass Cranberry Health Research Center, Department of Chemistry and Biochemistry, University of Massachusetts Dartmouth

72. Translational Model for External Volume Expansion in Irradiated Skin
Jorge Lujan-Hernandez, MD1, Michael S. Chin, MD2, Oksana O. Babchenko, BS1, Elizabeth Bannon, MS2, Heather Strom, MA1, Ronald Ignottz, PhD1, Yuan-Chyuan Lo, PhD2, Thomas J. Fitzgerald, MD2, Janice F. Lalikos, MD1
1Division of Plastic and Reconstructive Surgery, 2Department of Radiation Oncology, University of Massachusetts Medical School

73. Computerized 3-dimensional Localization of a Video Capsule in the Abdominal Cavity: Validation by Digital Radiography
Neil Marya, MD3, Andrew Karellas PhD2, Abhijit Roychowdhury MD2, Anne Foley1, David Cave MD1
74. Development and Validation of a Clinical Scoring System to Differentiate Patients with Inflammatory Bowel Disease and Diarrhea-Predominant Irritable Bowel Disease
Neil Marya¹, Veronica Baptista¹, Krunal Patel¹, Bruce A. Barton², Anne Foley¹, Christopher Macomber³, David R. Cave¹
¹Department of Internal Medicine, ²Department of Quantitative Health Sciences, ³Department of Surgery, University of Massachusetts Medical School

75. A Year of Gastrointestinal Bleeding: An Epidemiologic Study
Neil Marya¹, Salmaan A. Jawaid¹, Bilal Gondal¹, Louise Maranda², Christopher A. Marshall¹, Anne Foley¹, Joseph Charpentier¹, Anupam Singh¹, David R. Cave¹
¹Department of Internal Medicine, ²Department of Quantitative Health Sciences, University of Massachusetts Medical School

76. Evening Snacking in Relation to Self-reported Declines in Sleep Quality during Pregnancy: Preliminary Results from the Decision-Making, Eating, and Weight Gain During Pregnancy (DEW) Study
Wendy McCallum, BA¹, Bradley M. Appelhans, PhD², Tiffany A. Moore Simas, MD, MPH, ME³,⁴,⁵, Sherry R. Xiao, MPH⁴, Shums Alikhan, BS¹, Isabelle C. Pierre-Louis, BS⁵, Barbara C. Olendzki, RD, MPH, LDN⁶, Sherry L. Pagoto, PhD⁷, Molly E. Waring, PhD¹
¹Division of Epidemiology of Chronic Diseases and Vulnerable Populations, Department of Quantitative Health Sciences, University of Massachusetts Medical School; ²Department of Preventive Medicine, Rush University Medical Center, Chicago, IL; ³Division of Research, Department of Obstetrics and Gynecology and Department of Pediatrics, ⁴Department of Pediatrics, University of Massachusetts Medical School; ⁵Division of Obstetrics and Gynecology, UMass Memorial Health Care; ⁶Division of Behavioral and Preventive Medicine, Department of Medicine, University of Massachusetts Medical School

77. Plasma microRNAs are Associated with Atrial Fibrillation (the miRhythm Study) and Change After Catheter-ablation
David D. McManus, MD, MSc¹,²,³, Kahraman Tanriverdi, PhD¹, Honghuang Lin, PhD²,⁴, Nada Esa, MD¹, Menhel Kinno, MD¹, Rosalind Lee, MS⁸, Divakar Mandapati, MD¹, Stanley Tam, MD¹, MBA, Patrick T. Ellinor, MD, PhD⁹,¹⁰, John F. Keaney, Jr., MD¹, Emelia J. Benjamin, MD, MSc⁵,⁶,⁷, Victor Ambros, PhD⁸, Jane E. Freedman, MD¹,²
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78. In-hospital Depression Predicts Early Hospital Readmission after an Acute Coronary Syndrome: Preliminary Data from TRACE-CORE
David D. McManus, MD, ScM, FACC, FHRS¹,²,³, Jane S. Saczynski, PhD¹,²,³, Molly E. Waring, PhD¹, Milena Anatchkova, PhD¹,³, Richard McManus, MPH¹,³, Robert J. Goldberg, PhD¹,²,³, Jeroan Allison, MD, MS¹,²,³, David C. Parish, MD⁴, Hamza H. Awad, PhD, MD⁴, Jerry Gurwitz, MD¹,²,³, Arlene Ash, PhD¹,³, Catarina I. Kiefe, PhD, MD¹,³
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79. Transthoracic Bioimpedance Monitoring Predicts Heart Failure Decompensation and Early
Readmission after Heart Failure Hospitalization: Preliminary Data from SENTINEL-HF
David D. McManus, MD, ScM, FACC, FHRS, Jarno Riistema, PhD, Jane S. Saczynski, PhD, Fatima Sert Kuniyoshi, PhD, Joseph Rock, Theo E. Meyer, MD, DPhil, FACC, Nie G.P. den Teuling, MSC, Robert J. Goldberg, PhD, Chad Darling, MD, FACEP
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80. A Comparison of Wrist and Hip Accelerometer Output at Different Walking Speeds
Albert R. Mendoza, Amanda M. Hickey, Allison H. Gruber, John Staudenmayer, Patty S. Freedson, FACSM
University of Massachusetts Amherst

81. Prevalence and Comorbidity of Alcohol Dependence, Depression, and Anxiety Disorders in their Association with the Serotonin Transporter Gene
Ruben Miozzo, MD, MPH, O. Joseph Bienvenu, MD, PhD, William W Eaton, PhD, Gerald Nestadt, MD, MPH
1Worcester Recovery Center and Hospital, Worcester, MA; 2Psychiatry and Behavioral Sciences Johns Hopkins University School of Medicine; 3Department of Mental Health Bloomberg School of Public Health

82. Prescribing Patterns of Antipsychotic Medication in a Long-Term Care Psychiatric Hospital
Ruben Miozzo, MD, MPH, Mayra Tsiminetzky, MD, PhD, Seven Dolley, PharmD, Boris Lorberg, MD, Jeffrey Geller, MD, MPH
1Worcester Recovery Center and Hospital, Worcester, MA; 2Department of Quantitative Health Sciences, University of Massachusetts Medical School; 3Department of Psychiatry, University of Massachusetts Medical School

83. Epstein-Barr Virus (EBV)-lytic Cross-reactive Influenza-A (IAV) Memory. CD8 T-cells in EBV Seronegative Middle-aged Adults
Rabinarayan Mishra, Levi Watkin, Nuray Aslan, Anna Gil, Katherine Luzuriaga, Liisa K. Selin
1Department of Pathology, 2Program in Molecular Medicine, University of Massachusetts Medical School

84. Crossreactive Epstein-Barr Virus (EBV)-Influenza A Virus (IAV) Specific CD8 Memory T Cells During Acute Symptomatic IAV Infection
Rabinarayan Mishra, Anna Gil, Nuray Aslan, Katherine Luzuriaga, Liisa K. Selin
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85. Exosome-mediated Delivery of RNA Interference and miRNA Mimic
Fatemeh Momen-Heravi, DDS, Shashi Bala, PhD, Terence Bukong, PhD, Gyongyi Szabo, MD, PhD
Department of Medicine, University of Massachusetts Medical School

86. MassTERi: Promoting Translational Research and Entrepreneurship at the University of Massachusetts Medical School
Steering Committee: Melissa Moore, PhD, Celia Schiffer, PhD, Anastasia Khvorova, PhD, Anita Ballesteros, PhD, Cynthia Fuhrmann, PhD, Jean King, PhD, Margaret Koziel, MD, Thomas McCullough, Linda Plano, PhD
1Howard Hughes Medical Institute, RNA Therapeutic Institute; 2Biochemistry and Pharmacology, 3RNA Therapeutic Institute, 4Office of Technology Management, 5Career and Professional Development, 6Psychiatry and Center for Comparative Neuroimaging, 7Clinical Research, UMass Center for Clinical and Translational Science, 8Corporate and Foundation Relations, University of Massachusetts Medical School; 9Plano & Simple, Boston, MA
87. Adipose Tissue Inflammation in Diabetic versus Non-diabetic Pregnancies

Tiffany A. Moore Simas, MD, MPH, MEd1a, Raziel Rojas-Rodriguez, BS1b, Jacqueline Tessa Draper, BS1, Aylin Sert, MEd1, Maxwell Kruse1b, Crina Boeras, MD1a, Brittany Rosenthal1b, Olga Gealekman, PhD1b, So Yun Min, MSc1b, Kathy Leung, MPH1a, Silvia Corvera, MD1b

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88. Associations of Adipose Tissue Architecture, Adipokines and Inflammatory Markers with Body Mass Index and Gestational Weight Gain in Non-diabetic Pregnancies

Tiffany A. Moore Simas, MD, MPH, MEd1a, Crina Boeras, MD1a, NingNing Zhang, PhD1b, Olga Gealikman, PhD1c, Kathy Leung, MPH1a, Nicole Wedick, PhD1d, Laura Robidoux, BS1a, Jodi Adams Puleo, MA1a, Mary Lee, MD1b, Silvia Corvera, PhD1c, Milagros Rosal, PhD1d

1University of Massachusetts Medical School, aObstetrics & Gynecology, bPediatrics, cProgram in Molecular Medicine, dDivision of Preventive and Behavioral Medicine, Department of Medicine

89. The Effects of *Rhodiola Crenulata* Extract on Proliferation and Differentiation in Glioblastoma Multiforme

Maria Carmen Mora, MD2,3, Kaitlyn Wong, MD, MPH2,3, Michael Tirabassi, MD1, Richard Arenas, MD2,3,4, Sallie Schneider, PhD3,4

1Baystate Children’s Hospital, Tufts University School of Medicine, Springfield, MA; 2Baystate Medical Center, Tufts University School of Medicine, Springfield, MA; 3Pioneer Valley Life Sciences Institute, Springfield, MA; 4University of Massachusetts Amherst

90. Dantrolene for the Prevention and Treatment of Cerebral Vasospasm after Subarachnoid Hemorrhage – a Randomized Placebo-Controlled Trial to assess Safety, Tolerability and Feasibility

Susanne Muehlschlegel, MD, MPH1,2,3, Raphael Carandang, MD1,3, Wiley Hall, MD1,3, Nishi Kini, MPH4, Saef Izzy, MD1, I. Martijn VanDerBom, PhD5, Thomas F. Flood, BA5, Matthew Gounis, PhD5, John Weaver, MD6, Bruce Barton, PhD4

Departments of 1Neurology (Neurocritical Care), 2Anesthesia/Critical Care, 3Surgery, 4Quantitative Health Sciences, 5Radiology and 6Neurosurgery, University of Massachusetts Medical School

91. Live Well Springfield (LWS) – A Community Transformation Initiative

LWS.org Website Evaluation

Jesse Mushenko1, Elena Carbone1, Joseph Krupczynski1, Kathy Wicks2, Elaine Puleo1

1University of Massachusetts Amherst; 2Partners for a Healthier Community

92. Isolation of Human Antigen-Specific Antibodies from Memory B-Cells Nearly Two Years Post Vaccination

Stuart Nelson, Andrew Crowley, William Thomas, Colby A Souders

Department of Product Delivery, MassBiologics of the University of Massachusetts Medical School

93. Inhibition of Colon Cancer by Polyphenols from Whole Cranberry

Catherine Neto1, Anne Liberty1, Sarah Frade1, Anuradha Tata1, Tracie Ferreira2, Mingyue Song3, Xian Wu3, Hang Xiao3

UMass Cranberry Health Research Center and 1Department of Chemistry and Biochemistry, 2Department of Bioengineering, University of Massachusetts Dartmouth; 3Department of Food Science, University of Massachusetts Amherst

94. Cranberry Fruit and Leaf Polyphenols Inhibit Staphylococcus Bacterial Biofilms

Catherine Neto1, Jason MacLean1, Bigin Song1, Anthony Dovell1, Steven Kwasny2, Timothy Opperman2

1UMass Cranberry Health Research Center and Department of Chemistry and Biochemistry, University of Massachusetts Dartmouth; 2Microbiotix, Inc., Worcester, MA
95. A Pilot Study to Explore Contamination of Student Nurses’ Scrubs with *Staphylococcus aureus* and MRSA Before and After Laundering in College Dormitory
   Jennifer Nicoloro¹, Desta Marika²,³, Susan Duty², Elizabeth Scott³,⁴, Nancy Goodyear¹
   ¹Department of Clinical Laboratory and Nutritional Sciences, University of Massachusetts Lowell; ²Department of Nursing, Simmons College, Boston MA; ³Department of Biology, Simmons College, Boston MA; ⁴Simmons College Center for Hygiene and Health in Home and Community

96. Establishment of Rab-11 Induced Inflammatory Regulation as Therapeutic Targets in Colon Cancer Progression
   Yingchao Nie¹, Alla Amcheslavsky¹, Qi Li¹, Shiyan Yu², Nan Gao², Zhong Jiang⁴, Michele Markstein³, Tony Ip¹
   ¹Program in Molecular Medicine, University of Massachusetts Medical School; ²Biological Sciences, Rutgers University, Newark, NJ; ³Biology Department, University of Massachusetts Amherst; ⁴Department of Pathology, University of Massachusetts Medical School

97. Patient- and Hospital-level Predictors of 30-day Readmission after Acute Coronary Syndrome: A Systematic Review
   Lisa Nobel, MSc¹,², Jane Saczynski, PhD¹,², Arlene Ash, PhD², Catarina I. Kiefe, MD, PhD², Jeroan J. Allison, MD, MSc²
   ¹University of Massachusetts Medical School; ²Department of Quantitative Health Sciences, University of Massachusetts Medical School

98. Cervical Cancer in Cameroon: A Three Pronged Approach to Increase Awareness, Vaccination, Screening and Treatment
   Javier Gordon Ogembo¹, T.P. Muffih², L. Maranda¹, R. Wamai³; R. Kemunto³, E. Welty², T. Welty², S. Manga², L. Bradford¹, K. Kalmakis⁴ and L. K. Sheldon⁵
   ¹University of Massachusetts Medical School; ²Cameroon Baptist Convention Health Service; ³Northeastern University; ⁴University of Massachusetts Boston; ⁵University of Massachusetts Amherst

99. Anti-pPKCθ (T538) Delivery via Cell Penetrating Peptide Mimics as a Novel Treatment of Aplastic Anemia
   Emrah Ilker Ozay¹,²,³, Gabriela Gonzalez-Perez², Joe Torres¹,², Gregory N. Tew¹,²,³, Lisa M. Minter¹,²
   ¹Program in Molecular and Cellular Biology, ²Department of Veterinary and Animal Sciences, ³Department of Polymer Science and Engineering, University of Massachusetts Amherst

100. Live Well Springfield (LWS): Measuring Baseline Usage of the Springfield River Walk
    Timothy Paradis¹, Elena Carbone¹, Jeffrey McCollough², Elaine Puleo²
    ¹Department of Nutrition, University of Massachusetts Amherst; ²Pioneer Valley Planning Commission, Springfield, MA; ³Department of Public Health, University of Massachusetts Amherst

101. Effect of Oligopeptide Orientation on Polymer-based DNA Delivery
    Sangram S. Parelkar¹, Rachel Letteri¹, Jayne Ellis², Robert Elder³, Arthi Jayaraman³, Marxa Figueiredo², Todd Emrick¹
    ¹Polymer Science and Engineering Department, University of Massachusetts Amherst; ²Department of Pharmacology and Toxicology, University of Texas Medical Branch, Galveston, TX; ³Department of Chemical and Biological Engineering, University of Colorado Boulder, Boulder, CO

102. Ovariectomy Induces Early Changes in Cardiac Fibrosis and Angiotensin II Gene Expression
    Anisha Patel¹, Espen E. Spangenburg², Sarah Witkowski¹
    ¹Department of Kinesiology, University of Massachusetts Amherst; ²University of Maryland, College Park, MD

103. Structure-based Design of Broadly Neutralizing HCV Antibody and Vaccine
    Brian G. Pierce¹, Elisabeth Boucher², Heidi Smith², William Thomas, Jr.², Zhiping Weng¹, Yang Wang²
    ¹Program in Bioinformatics and Integrative Biology, University of Massachusetts Medical School; ²Product Discovery, MassBiologics of the University of Massachusetts Medical School
104. **Pharmaceutical Pain Management among Older Adults with Cancer in Nursing Homes**
Camilla B. Pimentel, MPH\(^1\), Becky A. Briesacher, PhD\(^2,3\), Kate L. Lapane, PhD\(^4\)
\(^1\)Clinical and Population Health Research Program, Graduate School of Biomedical Sciences; \(^2\)Meyers Primary Care Institute; \(^3\)Division of Geriatric Medicine; \(^4\)Department of Quantitative Health Sciences, University of Massachusetts Medical School

105. **Differential Burden of Musculoskeletal Pain in Blacks and Whites at the Time of Total Joint Replacement Surgery**
Anthony Porter, MD\(^1\), Leslie Harrold, MD, MPH\(^1\), Philip Noble, PhD\(^3\), David Ayers, MD\(^1\), Patricia D. Franklin, MD, MBA, MPH\(^1\), Jeroan Allison, MD, MS\(^2\)
\(^1\)Department of Orthopedics and Physical Rehabilitation; \(^2\)Department of Quantitative Health Sciences, University of Massachusetts Medical School; \(^3\)Baylor College of Medicine, Houston, TX

106. **Point-of-Care Diabetes Monitoring via Breath Acetone Detection**
Ronny Priefer\(^1\), Michael Rust\(^2\)
\(^1\)Department of Pharmaceutical and Administrative Science; \(^2\)Department of Biomedical Engineering, Western New England University, Springfield, MA

107. **Gene Expression Profiles Identify Features Common to Lobular and Ductal Premalignant Breast Lesions**
Amy L. Roberts\(^1\), D. Joseph Jerry\(^1,2\), Kelly A. Gauger\(^2\), Sallie S. Schneider\(^2\), Giovanna M. Crisi\(^3\), Grace Makari-Judson\(^3\), Ashraf Khan\(^4\), Karl Simin\(^4\)
\(^1\)University of Massachusetts Amherst; \(^2\)Pioneer Valley Life Sciences Institute, Springfield, MA; \(^3\)Baystate Medical Center, Springfield, MA; \(^4\)University of Massachusetts Medical School

108. **Application of Diarylhydrazones, Schiff-bases and Their Saturated Derivatives as Multifunctional Inhibitors of Amyloid Self-Assembly**
Christian Schäfer\(^1\), Sanjukta Ghosh\(^1\), Marianna Török\(^1,2\), Béla Török\(^1,2\)
\(^1\)Department of Chemistry, University of Massachusetts Boston; \(^2\)University of Massachusetts Center for Clinical and Translational Science

109. **Transdifferentiation of α- to β-cells is Enhanced in FSTL3 KO Mice**
Alan Schneyer\(^1\), Danielle Andrzejewski\(^1\), Amy Burnside\(^1\), Melissa Brown\(^2\)
\(^1\)Veterinary & Animal Sciences; \(^2\)Department of Continuing & Professional Education, University of Massachusetts Amherst

110. **Modified Hatch Score Predicts 6-Month Recurrence of Atrial Fibrillation after Pulmonary Vein Isolation: Data from the University Of Massachusetts Atrial Fibrillation Registry**
Amir Y. Shaikh, MD\(^1\), Abhishek Maan, MD\(^2\), Nada Esa, MD\(^1\), Menhel Kinno, MD\(^1\), Kevin C. Floyd, MD\(^1,3\), Lawrence S. Rosenthal, MD\(^1,3\), Clifford A. Browning, MD\(^1,3\), David D. McManus, MD\(^1,3,4\)
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111. **Physical Activity and Screen Time in Adolescents and Their Nominated Friends**
John R. Sirard, PhD\(^1\), Meg Bruening, PhD, MPH, RD\(^2\), Melanie M. Wall, PhD\(^3\); Marla E. Eisenberg, ScD, MPH\(^4\), Sun K. Kim, PhD\(^5\), Dianne Neumark-Sztainer, PhD, MPH, RD\(^6\)
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*Authors Sirard, Bruening, and Wall were employed at the University of Minnesota when this research was completed.*
112. Vancomycin-bearing Synthetic Bone Graft Delivers rhBMP-2 and Promotes Healing of Critical Rat Femoral Segmental Defects
Jordan D. Skelly, Jeffrey Lange, Tera M. Filion, Xinning Li, David C. Ayers, Jie Song
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113. In Vivo Evaluation of a Biomimetic Polymer-Doxorubicin Conjugate for Cancer Therapy
Matthew Skinner1, Samantha McRae Page1, Xiangji Chen1, Sangram S. Parelkar1, Kaitlyn Wong2,
Maria Mora2, Sallie Schneider2, Todd Emrick1
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114. Poor Pre-Operative Emotional Health Limits Gain in Function after Total Hip Replacement
Benjamin Snyder, MD, MPH1, Leslie Harrold, MD, MPH1, Timothy Boardman1, Wenjun Li, PhD2,
Courtland Lewis, MD3, David Ayers, MD1, Patricia D. Franklin, MD, MBA, MPH1
1Department of Orthopedics and Physical Rehabilitation, 2Department of Preventive and Behavioral Medicine, University of Massachusetts Medical School; 3Hartford Hospital, Hartford CT

115. Multiple Approaches to Determine Toxicity of Micro and Nano-sized Titanium Dioxide Materials When Exposed to Human Red Blood Cells
Aaron Stella1, Shu-Feng Hsieh1,2, Dhimiter Bello2,3, Daniel Schmidt2,4, Eugene Rogers1,2
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Hannah Stenger1, Elena Carbone DrPH1, Tasha Moultrie-Phillips2, Wanda Givens2, Elaine Puleo PhD3
1Department of Nutrition, University of Massachusetts Amherst; 2Mason Square Health Task Force, Springfield MA; 3Department of Public Health, University of Massachusetts Amherst

117. Ablation Of Raf-1 Kinase Inhibitory Protein (RKIP) Improves Photoreceptor Structure and Function in a Cep290-Mutant Mouse Model Of Severe Retinal Degeneration
Balajikarthick Subramanian, Manisha Anand, Hemant Khanna
Department of Ophthalmology, University of Massachusetts Medical School

118. Trends and Characteristics Associated with the Risk of Re-hospitalization in Patients Discharged from the Hospital after Acute Myocardial Infarction
Mayra Tisminetzky, MD, PhD, Han-Yang Chen, MS, Edgard Alex Granillo, MD, Joel Gore, MD. Jorge Yarzebski, MD, MPH, Darleen Lessard, MS, Robert Goldberg, PhD
Department of Quantitative Health Sciences, University of Massachusetts Medical School

119. Inhibition of Bromodomain Proteins in Treatment of Diffuse Large B-cell Lymphoma
Sally E. Trabucco1, Rachel M. Gerstein2, Andrew M. Evens3, James E. Bradner4, Leonard D. Shultz5,
Dale L. Greiner6, Hong Zhang1
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120. Displacement Across a Fracture Gap with Axial Loading of Far Cortical Locking Constructs
Peter J. Wagner, MD, MMS1, Dennis T. Murphy, BS1, Kristen Billiar, PhD2, Judith Siegel, MD1, John J. Wixted, MD3
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1UMass Memorial Medical Center, Worcester, MA; 2Harvard School of Public Health, Boston MA

122. Detection of Diabetic Foot Ulcers Using SVM Based Classification
Lei Wang1, Peder C. Pedersen1, Diane M. Strong2, Bengisu Tulu2, Emmanuel Agu3, Qian He3, Ronald Ignatz4, Raymond Dunn4, David Harlan5, Sherry Pagoto6
1Department of Electrical and Computer Engineering, 2School of Business, 3Department of Computer Science, Healthcare Delivery Institute at Worcester Polytechnic Institute; 4Department of Surgery, 5Department of Medicine, University of Massachusetts Medical School

123. Automatic Article Screening in Systematic Review
Tong Wang
Department of Computer Science, University of Massachusetts Boston

124. Developing a Whole Plant Artemisia annua Antimalarial Therapeutic: pACT
Pamela Weathers1, Nicole Jordan1, Praphapan Lasin1, Melissa Towler2, Douglas Golenbock3, Mostafa Elfawal4, Nicholas Reich 5, George Acquaah-Mensah3, Stephen Rich3
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125. Coordination Variability after Hip Replacement Surgery: A Case Report
A.J. Whited, J. Freedman Silvernail, D. Kelly, N. Fay, J. Hamill
Biomechanics Laboratory, University of Massachusetts Amherst

126. A Novel Approach to Targeted Oncologic Therapy - Co-culture Viability of Polymer Prodrug Conjugation to Mesenchymal Stem Cells
Kaitlyn Wong1,2,4, Nicholas Panzarino1,2,3, Samantha McRae Page3, Richard Arenas1,2,4, Sallie Schneider1,2, Todd Emrick3
1Pioneer Valley Life Sciences Institute, Springfield, MA; 2Molecular and Cellular Biology Program, 3Polymer Science and Engineering Program, University of Massachusetts Amherst; 4Baystate Medical Center, Tufts Medical School, Springfield, MA

127. Availability of Food Preparation Supplies among Pregnant Women: Preliminary Results from the Decision Making, Eating, and Weight Gain during Pregnancy (DEW) Study
Rui S. Xiao, MPH1, Tiffany A. Moore Simas, MD, MPH, MEd2,3,4, Bradley M. Appelhans, PhD5, Isabelle C. Pierre-Louis, BS1, Shums Alkhan, BS1, Barbara C. Olendzki, RD, MPH, LDN6, Sherry L. Pagoto, PhD6, Molly E. Waring, PhD1
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128. Cytocompatible Tough Hydrogel Platform with Predictable Degradation
Jianwen Xu, Ellva Feng, Jie Song
Department of Orthopedics & Physical Rehabilitation, Department of Cell & Developmental Biology, University of Massachusetts Medical School
129. Amphiphilic Degradable Polymers for Immobilization and Sustained Delivery of Sphingosine 1-Phosphate
Jing Zhang, PhD, Jie Song, PhD
Department of Orthopedics & Physical Rehabilitation, University of Massachusetts Medical School

130. Comprehensive Data Management System for National Patient-Centered Outcomes Research for Comparative Effectiveness in Total Joint Replacement
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131. Self-esteem Influences on Multiple Domains: Stress, Health, Mood, and Social Identity
Hannah E. Lapp, Stephanie L. Power, Kymberlee M. O’Brien, Celia L. Moore
Department of Psychology, University of Massachusetts Boston

132. Upconversion Nanoparticles for Photodynamic Therapy
Hyungseok Lee, Mahmoud El-rifai, Amira Tokatli-Apollon, Amol Punjabi, Xiang Wu, Gang Han
Department of Biochemistry and Molecular Pharmacology, University of Massachusetts Medical School

133. The Role of miR-122 in Alcoholic Liver Disease
Abhishek Satishchandran, Nicita Mehta, Donna Catalano, Shashi Bala, Gyongyi Szabo
Department of Medicine, University of Massachusetts Medical School

134. Development of Novel 3,5-Dimethylisoxazoles as Selective Inhibitors of BET-bromodomain Proteins
Shuai Liu¹, Michael R. McKeown², Harry Fu¹, Daniel Shaw², Yibo Huang¹, Jun Qi², James E. Bradner², Wei Zhang¹
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