



**CENTER FOR CLINICAL AND  
TRANSLATIONAL SCIENCE**

**7<sup>TH</sup> ANNUAL RESEARCH RETREAT**

**POSTER SESSION**

1:45 – 3:00 pm

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



**1. InVitro-Q: A High-throughput Biosensor Used to Evaluate the Mechanism of Phagocytosis of Macrophages Using Different Particles**

Marynawal Abdou and Abiche Dewilde, PhD  
InVitroMetrix Corporation, Lowell MA

**2. Frequent Cannabis Users Have Reduced Odds for Non Alcoholic Fatty Liver Disease**

Adeyinka C. Adejumo, MD, MS<sup>1,2</sup>, Nnaemeka Onyeakusi, MD, MPH<sup>3</sup>,  
Samson Alliu, MD, MPH<sup>4</sup>, Ogooluwa Ojelabi, MS<sup>1</sup>  
<sup>1</sup>University of Massachusetts Medical School; <sup>2</sup>North Shore Medical  
Center Salem Hospital, Salem, MA; <sup>3</sup>Bronx-Lebanon Hospital Center,  
Bronx NY; <sup>4</sup>Maimonides Medical Center, Brooklyn NY

**3. The Utilization of Video Capsule Endoscopy in Patients with Peutz–Jeghers Syndrome**

Yasir Al-Azzawi, MD<sup>1</sup>, Erik Holzwanger, MD<sup>1</sup>, David Cave, MD, PhD<sup>2</sup>  
Department of Medicine<sup>1</sup>, Division of Gastroenterology<sup>2</sup>, UMass  
Memorial Medical Center

**4. Does Pre-Stroke Statin Use Influence Survival and Institutionalization after Hospital Discharge?**

M. Alcusky, PharmD, MS<sup>1</sup>; AL Hume, PharmD<sup>2</sup>; KL Lapane, PhD<sup>1</sup>,  
<sup>1</sup>University of Massachusetts Medical School; <sup>2</sup>University of Rhode  
Island College of Pharmacy, Kingston, RI

**5. The "Double Loaded" LV: High Prevalence of Hypertensive LVH Preceding the Development of Severe Aortic Stenosis**

Summer Aldrugh<sup>1</sup>, Neha Varma<sup>2</sup>, Colleen Harrington<sup>3</sup>, Matthew Parker<sup>3</sup>,  
Nikolaos Kakouros<sup>3</sup>, Gerard P. Aurigemma<sup>3</sup>

<sup>1</sup>Department of Medicine, <sup>2</sup>Division of Epidemiology, Department of  
Quantitative Health Sciences, <sup>3</sup>Division of Cardiovascular Medicine,  
University of Massachusetts Medical School

**6. Predictors of Cardiac Mortality in the CCU: A Retrospective Study in a Tertiary Center**

Summer Aldrugh<sup>1</sup>, Aditya Vaze<sup>1</sup>, Adedotun Anthony Ogunsua<sup>2</sup>, Gloria  
Shan<sup>1</sup>, Amrit Vinod<sup>3</sup>, Modupeola Diyaolu<sup>3</sup>, Craig Smith<sup>2</sup>

<sup>1</sup>Department of Medicine, <sup>2</sup>Division of Cardiovascular Medicine, <sup>3</sup>School  
of Medicine, University of Massachusetts Medical School

**7. Association between Psychosocial Factors, Quality of Life and Atrial Fibrillation**

Summer Aldrugh<sup>1</sup>, Mayank Sardana<sup>2</sup>, Darleen M. Lessard<sup>3</sup>, Jane S.  
Saczynski<sup>3</sup>, David D. McManus<sup>2</sup>

<sup>1</sup>Department of Medicine, <sup>2</sup>Division of Cardiovascular Medicine, <sup>3</sup>Division  
of Epidemiology, Department of Quantitative Health Sciences, University  
of Massachusetts Medical School

**8. An Innovative Nurse-Managed Transition Clinic for Adolescents and Young Adults with Spina Bifida: A Pilot Study**

Mohammad Alkawaldeh, PhD, MSN, RN<sup>1,2</sup>; Rebecca Sherlock, MSN,  
RN<sup>2</sup>; Estrada Carlos, PhD, MD<sup>2</sup>; Erika Alkhalwaldeh, LPN<sup>3</sup>

<sup>1</sup>College of Nursing, University of Massachusetts Amherst; <sup>2</sup>Boston  
Children's Hospital; <sup>3</sup>Massachusetts General Hospital

**9. The BCH-SBPR: A Multi-disciplinary Registry Collecting Longitudinal Data on Patients with Spina Bifida**

Mohammad Alkawaldeh, PhD, MSN, RN<sup>1,2</sup>; Rebecca Sherlock, MSN,  
RN<sup>2</sup>; Estrada Carlos, PhD, MD<sup>2</sup>; Erika Alkhalwaldeh, LPN<sup>3</sup>

<sup>1</sup>College of Nursing, University of Massachusetts Amherst; <sup>2</sup>Boston  
Children's Hospital; <sup>3</sup>Massachusetts General Hospital

**10. The Effectiveness of Tablet-based application for Older Adults with Diabetes Mellitus Type II: A Pilot Study**

Mohammad Alkawaldeh, PhD, MS, RN<sup>1</sup>; Cynthia Jacelon, PhD, RN,  
FGSA, FAAN<sup>1</sup>; Jeungok Choi, PhD<sup>1</sup>; Jenna Marquard, PhD<sup>2</sup>, John  
Ridgway, PhD<sup>3</sup>

<sup>1</sup>College of Nursing, <sup>2</sup>College of Engineering, University of  
Massachusetts Amherst; <sup>3</sup>Massachusetts College of Art and Design,  
Boston, MA

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

Jenny Aurielle B. Babon<sup>1</sup>, Megan E. DeNicola<sup>1</sup>, David M. Blodgett<sup>1</sup>, Inne Crèvecoeur<sup>2</sup>, Thomas S. Buttrick<sup>3</sup>, René Maehr<sup>4</sup>, Rita Bottino<sup>5,6</sup>, Ali Najj<sup>7</sup>, John Kaddis<sup>8</sup>, Wassim Elyaman<sup>3</sup>, Eddie A. James<sup>9</sup>, Rachana Haliyur<sup>10</sup>, Marcela Brissova<sup>10</sup>, Lut Overbergh<sup>2</sup>, Chantal Mathieu<sup>2</sup>, Thomas Delong<sup>11</sup>, Kathryn Haskins<sup>11</sup>, Alberto Pugliese<sup>12</sup>, Martha Campbell-Thompson<sup>13</sup>, Clayton Mathews<sup>13</sup>, Mark A. Atkinson<sup>13</sup>, Alvin C. Powers<sup>10,14,15</sup>, David M. Harlan<sup>1</sup>, Sally C. Kent<sup>1</sup>

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

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

Ricardo Bello, MD<sup>1</sup>, Wei Huang, PhD<sup>1</sup>, Jennifer Walker, MD<sup>1</sup>, William Hoffman, MD<sup>2</sup>, Christina Vassileva, MD<sup>1</sup>

<sup>1</sup>Department of Surgery, <sup>2</sup>Department of Anesthesiology, University of Massachusetts Medical School

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

Castañeda-Avila MA, MS<sup>1</sup>; Ortiz-Ortiz KJ, DrPH<sup>2</sup>; Torres-Cintrón CR, MPH<sup>2</sup>; Epstein MM, ScD<sup>3</sup>

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

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

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

Joohyun Chung, PhD, MStat, RN<sup>1</sup>, Donghui Yan, PhD<sup>2</sup>, Gray Davis, PhD<sup>2</sup>

<sup>1</sup>Adult Department, College of Nursing, <sup>2</sup>Department of Mathematics, College of Art and Sciences, University of Massachusetts Dartmouth

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

Vijaya T. Daniel MD, MPH<sup>1,2</sup>, Stacy B. Sanders MD, MS, MHA<sup>1,2</sup>, Didem Ayturk MS<sup>2</sup>, Beth A. McCormick PhD<sup>3</sup>, Heena P. Santry MD, MS<sup>2,4</sup>

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

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

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

Department of Obstetrics and Gynecology, University of Massachusetts Medical School

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

Alec M. DeSimone<sup>1,2</sup>, Genila Bibat<sup>3</sup>, Kathryn Wagner<sup>3</sup>, Guido Stadler<sup>4</sup>, Woodring E. Wright<sup>4</sup>, John Leszyk<sup>5</sup>, and Charles P. Emerson, Jr.<sup>1,2</sup>

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

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

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

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

- 19. Altered Baroreflex-Mediated Cardiovascular Responses to Acute Hypotension in Heart Failure Patients Compared to Healthy Adults**  
Rachel C. Drew, PhD<sup>1,2</sup>, Chelsea N. Lindblad, MS<sup>3</sup>, Soraya M. Samii, MD, PhD<sup>2</sup>, Cheryl A. Blaha, RN<sup>2</sup>, Michael J. White, PhD<sup>4</sup>, Lawrence I. Sinoway, MD<sup>2</sup>  
<sup>1</sup>Department of Exercise and Health Sciences, University of Massachusetts Boston; <sup>2</sup>Penn State Heart and Vascular Institute, Penn State College of Medicine, Hershey, PA; <sup>3</sup>Penn State College of Medicine, Hershey, PA; <sup>4</sup>School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham, Birmingham, UK
- 20. Measuring Changes in Brain Metabolite Levels Using Live-animal Magnetic Resonance Spectroscopy and Offline LC-MS Metabolomics in a Binge-ethanol Murine Model**  
Michelle L Dubuke<sup>1,2</sup>, Guillaume L Poirer<sup>3</sup>, Laurelee Payne<sup>3</sup>, Arlene Lim<sup>4</sup>, Pranoti Mandrekar<sup>4</sup>, Constance M Moore<sup>3</sup>, Jean A King<sup>3</sup>, Scott A. Shaffer<sup>1,2</sup>  
<sup>1</sup>Department of Biochemistry and Molecular Pharmacology, <sup>2</sup>Proteomics and Mass Spectrometry Facility, <sup>3</sup>Center for Comparative Neuroimaging, <sup>4</sup>Department of Medicine, University of Massachusetts Medical School
- 21. Effects of Positive Regard and Induced Social Stress on Cognitive Function: A Psychophysiological Perspective**  
Sherief Y. Eldeeb<sup>1</sup>, Kate Romero<sup>2</sup>, Kymberlee O'Brien, PhD<sup>2</sup>  
<sup>1</sup>Department of Psychology, Clark University; <sup>2</sup>Department of Social Science and Policy, Worcester Polytechnic Institute
- 22. Survivors of an Acute Coronary Syndrome with Lower Patient Activation Are More Likely to Experience Declines in Health-Related Quality of Life**  
Nathaniel A. Erskine, BA<sup>1</sup>, Barbara Gandek, PhD<sup>1,2</sup>, Molly E. Waring, PhD<sup>1</sup>, Rebecca L. Kinney, MPH<sup>1</sup>, Darleen M. Lessard MS<sup>1</sup>, Randolph S. Devereaux PhD, MSPH<sup>3</sup>, Stavroula A. Chrysanthopoulou PhD<sup>1</sup>, Catarina I. Kiefe, PhD, MD<sup>1</sup>, Robert J. Goldberg, PhD<sup>1</sup>  
<sup>1</sup>Department of Quantitative Health Sciences, University of Massachusetts Medical School; <sup>2</sup>John Ware Research Group, Watertown, MA; <sup>3</sup>Mercer University College of Medicine, Macon, GA
- 23. Functional vs. Traditional Resistance Training: Affective Response and Exercise Enjoyment in College-Age Females**  
Jamie Faro, MS<sup>1</sup>, Jessica Whiteley, PhD<sup>1</sup>, Laura L. Hayman, PhD<sup>2</sup>  
<sup>1</sup>Department of Exercise and Health Sciences, <sup>2</sup>Department of Nursing, University of Massachusetts Boston
- 24. Identification and Characterization of Human Monoclonal Antibodies for Immunoprophylaxis against Enterotoxigenic Escherichia coli**  
Serena Giuntini, Matteo Stoppato, Maja Sedic, Monir Ejemel, Danielle Wisheart, Mark S. Klemper, Yang Wang  
MassBiologics of UMMS, Boston, MA
- 25. Understanding the Structure of Amyloid Fibrils using Atomic Force Microscopy (AFM) to Design New Therapeutic Strategies for Neurodegenerative Diseases**  
Sumeyra Gokalp, MS and Michelle Foster, PhD  
Department of Chemistry, University of Massachusetts Boston
- 26. Principles of Augmentative and Alternative Communication System Design in the ICU Setting**  
Miriam A. Goldberg<sup>1</sup>, Leigh R. Hochberg<sup>2</sup>, Dawn Carpenter<sup>3</sup>, Johnny Isenberger<sup>3</sup>, Stephen O. Heard<sup>4</sup>, J. Matthias Walz<sup>4</sup>  
<sup>1</sup>Graduate School of Biomedical Sciences, University of Massachusetts Medical School; <sup>2</sup>Department of Neurology, Massachusetts General Hospital, Boston, MA and Department of Engineering, Brown University; <sup>3</sup>UMass Graduate School of Nursing; <sup>4</sup>Department of Anesthesiology & Perioperative Medicine, University of Massachusetts Medical School
- 27. Testing a Novel Manual Communication System for Mechanically Ventilated ICU Patients**  
Miriam A. Goldberg<sup>1</sup>, Leigh R. Hochberg<sup>2</sup>, Dawn Carpenter<sup>3</sup>, Johnny Isenberger<sup>3</sup>, Stephen O. Heard<sup>4</sup>, J. Matthias Walz<sup>4</sup>  
<sup>1</sup>Graduate School of Biomedical Sciences, University of Massachusetts Medical School; <sup>2</sup>Department of Neurology, Massachusetts General Hospital, Boston, MA and Department of Engineering, Brown University; <sup>3</sup>UMass Graduate School of Nursing; <sup>4</sup>Department of Anesthesiology & Perioperative Medicine, University of Massachusetts Medical School
- 28. Pericardial Fat Thickness Increases with Greater Burden of Adverse Metabolic Factors Among Adults with Normal-Range Body Mass Index: The Framingham Heart Study**  
Philimon N. Gona, PhD<sup>1</sup>, Jane J. Lee, MD<sup>2</sup>, Noriko Oyama-Manabe, MD, PhD<sup>3</sup>, Carol J. Salton, BA<sup>4</sup>, Warren J. Manning, MD<sup>4</sup>, Michael L. Chuang, MD<sup>4</sup>, Christopher J. O'Donnell, MD, MPH<sup>5</sup>  
<sup>1</sup>University of Massachusetts Boston; <sup>2</sup>Boston Children's Hospital, Boston, MA; <sup>3</sup>University of Hokkaido, Sapporo, Japan; <sup>4</sup>Beth Israel Deaconess Medical Center, Boston, MA; <sup>5</sup>VA Boston Healthcare System, Boston, MA

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

Jonathan Green, MD<sup>1</sup>, Gregory Keefe, BS<sup>2</sup>, Rachele N. Damle, MD, MS<sup>1</sup>, Pradeep P. Nazarey, MD<sup>1</sup>, Jeremy T. Aidlen, MD<sup>1</sup>, Mariann Manno, MD, EdM<sup>3</sup>, Michael P. Hirsh, MD<sup>1</sup>

<sup>1</sup>Division of Pediatric Surgery, Department of General Surgery;

<sup>2</sup>University of Massachusetts Medical School; <sup>3</sup>Division of Pediatric Emergency Medicine, Department of Pediatrics, University of Massachusetts Medical School

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

Alisha M. Gruntman DVM, PhD<sup>1,2,5</sup>, Gwladys Gernoux PhD<sup>1</sup>, Gensheng Wang PhD<sup>3</sup>, Janet Benson PhD<sup>3</sup>, Jeff Chulay MD<sup>4</sup>, Dave Knop<sup>4</sup>, Christian Mueller PhD<sup>1,5</sup>, Terence R Flotte MD<sup>1,5</sup>

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

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

J. Lee Hargraves, PhD<sup>1</sup>, Debra Bonollo, BA<sup>2</sup>, Warren Ferguson, MD, MPH<sup>2</sup>, Elizabeth Orvek, MS, MBA<sup>3</sup>

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

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

Christina F. Haughton, MPH<sup>1</sup>, Molly Waring, PhD<sup>2</sup>, Lori Pbert, PhD<sup>1</sup>, Milagros C. Rosal, PhD<sup>1</sup>, Stephenie C. Lemon, PhD<sup>1</sup>

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

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

Erik Holzwanger, MD<sup>1</sup>, Yasir Al-Azzawi, MD<sup>1</sup>, David Cave, MD, PhD<sup>2</sup>  
Department of Medicine<sup>1</sup>, Division of Gastroenterology<sup>2</sup>, UMass Memorial Medical Center

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

Erik Holzwanger, MD<sup>1</sup>, Soumil Patwardhan, MBBS<sup>1</sup>, and Sunkaru Touray, MBChB<sup>2</sup>, Daniel B. Knox, MD<sup>2</sup>

Department of Medicine<sup>1</sup>, Department of Pulmonary Allergy & Critical Care Medicine<sup>2</sup>, UMass Memorial Medical Center

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

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

Department of Chemistry, University of Massachusetts Boston

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

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

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

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

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

Jacob N. Hunnicutt, MPH<sup>1</sup>; Christine Ulbricht, PhD<sup>1</sup>; Anne Hume, PharmD<sup>2</sup>; Kate Lapane, PhD<sup>1</sup>

<sup>1</sup>University of Massachusetts Medical School; <sup>2</sup>University of Rhode Island, Kingston, RI

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

Brendan J. Innes<sup>1</sup>, Peter R. Chai, MD, MMS<sup>2,3</sup>, Stephanie C. Carreiro, MD<sup>2</sup>, Brittany Chapman<sup>2</sup>, Matthew K. Griswold, MD<sup>2</sup>, Edward W. Boyer, MD, PhD<sup>2,3</sup>

<sup>1</sup>School of Medicine, <sup>2</sup>Division of Medical Toxicology, Department of Emergency Medicine, University of Massachusetts Medical School;

<sup>3</sup>Division of Medical Toxicology, Department of Emergency Medicine, Brigham and Women's Hospital

**40. Health Applications of Network Science and Computational Social Science**

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

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

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

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

Janel Kydd, MS<sup>1</sup>, Rahul Jadia, MS<sup>1</sup>, Prakash Rai, PhD<sup>1,2</sup>  
<sup>1</sup>Biomedical Engineering and Biotechnology Program, <sup>2</sup>Department of Chemical Engineering, University of Massachusetts Lowell

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

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

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

Wenjun Li<sup>1</sup>, Elizabeth Procter-Gray<sup>1</sup>, Linda Churchill<sup>1</sup>, Scott Crouter<sup>2</sup>, Kevin Kane<sup>1</sup>, Jie Cheng<sup>1</sup>, Fuding Rui<sup>1</sup>, Jie Tian<sup>3</sup>, Patricia Franklin<sup>4</sup>, Judith Ockene<sup>1</sup>, Jerry Gurwitz<sup>1</sup>, MD  
<sup>1</sup>Department of Medicine, University of Massachusetts Medical School; <sup>2</sup>Department of Kinesiology, Recreation, and Sport Studies, University of Tennessee Knoxville; <sup>3</sup>Department of International Development, Community, and Environment, Clark University; <sup>4</sup>Department of Orthopedics and Physical Rehabilitation, University of Massachusetts Medical School

**45. Clot Characterization in Acute Ischemic Stroke**

Joshua Litchman, BA<sup>1</sup>, Juyu Chueh, PhD<sup>1</sup>, Rose Arslanian<sup>1</sup>, Srinivasan Vedantham, PhD<sup>1</sup>, Sarena Carniato<sup>2</sup>, David Rex, MD, PhD<sup>1</sup>, Mary Howk, MS<sup>1</sup>, Matthew Gounis, PhD<sup>1</sup>, Ajit Puri, MD, PhD<sup>1</sup>

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

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

Shuai Liu<sup>1</sup>, Huachao Huang<sup>2</sup>, Maxime Jean<sup>2</sup>, Wei Zhang<sup>1</sup>, Jian Zhu<sup>2</sup>  
<sup>1</sup>Department of Chemistry, University of Massachusetts Boston; <sup>2</sup>Department of Microbiology and Immunology, University of Rochester Medical Center, Rochester, NY

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

Andrea Lopez-Cepero, MHSN<sup>1,2</sup>, Christine Frisard, MS<sup>2</sup>, Stephenie C. Lemon, PhD<sup>2</sup>, and Milagros C Rosal, PhD<sup>2</sup>  
<sup>1</sup>Clinical and Population Health Research Program, Department of Quantitative Health Sciences, <sup>2</sup>Division of Preventive and Behavioral Medicine, Department of Medicine, University of Massachusetts Medical School

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

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

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

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

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

Deborah Mack, MPH<sup>1</sup>, Jacob Hunnicutt, MPH<sup>1</sup>, Bill Jesdale, PhD<sup>2</sup>, Christine Ulbricht, PhD<sup>2</sup>, Kate Lapane, PhD<sup>2</sup>

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

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

John McNeill, PhD<sup>1</sup>, Yitzhak Mendelson, PhD<sup>1</sup>, Raymond Dunn, MD<sup>2</sup>, Xinming Huang, PhD<sup>1</sup>, Devdip Sen<sup>1</sup> Kelli Hickie MD<sup>2</sup>  
<sup>1</sup>Worcester Polytechnic Institute, Worcester, MA; <sup>2</sup>University of Massachusetts Medical School

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

Noureddine Melikechi, PhD<sup>1</sup>, Rosalba Gaudio, PhD<sup>1,2</sup>, Ebo Ewusi-Annan, PhD<sup>1</sup>  
<sup>1</sup>Department of Physics and Applied Physics, University of Massachusetts Lowell; <sup>2</sup>Institute of Nanotechnology Nanotec-CNR, Italy

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

Sara Minsky, MPH<sup>1</sup>, Carmenza Bruff, BS<sup>1</sup>, Diana Cortes, BA<sup>1</sup>, Shoba Ramanadhan, ScD, MPH<sup>1,2</sup>, Kasisomayajula Viswanath, PhD<sup>1,2</sup>, PLANET MassCONNECT Community Partners Advisory Committee (names and affiliations to be highlighted on poster)  
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**54. Variable Knowledge, Use and Perceptions of the IMPACT Model among Physicians during Prognostication Meetings for Critically-ill Traumatic Brain Injury Patients – Results from a Qualitative Study**

Jesse Moskowitz, BS<sup>1</sup>; Thomas Quinn, BS<sup>1</sup>; Muhammad W. Khan, MBBS<sup>1</sup>, Lori Shutter, MD<sup>2</sup>; Robert Goldberg, PhD<sup>3</sup>; Nananda Col, MD, MPP, MPH<sup>4</sup>; Kathleen M. Mazor, EdD<sup>5,6</sup>; Susanne Muehlschlegel, MD, MPH<sup>1,7,8</sup>  
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**55. Matrix Assisted Laser Desorption Ionization (MALDI) Mass Spectrometry: An Imaging Modality to Monitor the Effects of Gene Therapy in a Murine Model of GM1 Gangliosidosis**

Khaja Muneeruddin<sup>1,2</sup>, Bindesh Shrestha<sup>5</sup>, Hernando Olivos<sup>5</sup>, Sophia Todeasa<sup>3,4</sup>, Eleonora D'Ambrosio<sup>3,4</sup>, Miguel Sena-Esteves<sup>3,4</sup>, and Scott A. Shaffer<sup>1,2</sup>  
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**56. The Smoking Paradox in the Development of Psoriatic Arthritis among Psoriasis Patients – A Population-Based Study**

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

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

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

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

Michael G. Noujaim MSc<sup>1</sup>, May Min MD<sup>2</sup>, David Cave MD/PhD<sup>2,3</sup>  
<sup>1</sup>University of Massachusetts Medical School, <sup>2</sup>Department of Internal Medicine, <sup>3</sup>Division of Gastroenterology, University of Massachusetts Medical School

**59. Macroglossia in Inclusion Body Myositis**

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

**60. Dermatomyositis as Paraneoplastic Manifestation of Tonsillar Squamous Cell Carcinoma**

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

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

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

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

Seth Peters, MPH<sup>1,2</sup>  
<sup>1</sup>First Faculty of Medicine, Charles University, Prague, Czech Republic;  
<sup>2</sup>Rhode Island Department of Health

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

Brandon Piel<sup>1</sup>, Micheal Doane<sup>1,3</sup>, Praveena Velpurisiva<sup>2</sup>, Prakash Rai<sup>1</sup>  
<sup>1</sup>Department of Chemical Engineering, <sup>2</sup>Department of Biomedical Engineering and Biotechnology, <sup>3</sup>Department of Biological Sciences, University of Massachusetts Lowell

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

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

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

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

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

Edward Rockenstein<sup>1</sup>, Gary Ostroff<sup>2</sup>, Fusun Dikengil<sup>3</sup>, Florentina Rus<sup>2</sup>, Michael Mante<sup>1</sup>, Jazmin Florio<sup>1</sup>, Anthony Adame<sup>1</sup>, Ivy Trinh<sup>1</sup>, Cassia Overk<sup>1</sup>, Eliezer Masliah<sup>1</sup> and Robert Rissman<sup>1</sup>  
<sup>1</sup>Department of Neurosciences, University of California, San Diego, La Jolla, CA; <sup>2</sup>Program in Molecular Medicine, and <sup>3</sup>Internal Medicine, University of Massachusetts Medical School

**67. Liposomal Bupivacaine in Total Knee Arthroplasty: Preliminary Results of a Two-Surgeon, Retrospective Study**

Hayden B. Rockson, MD, MA<sup>1</sup>, Jeffrey N. Metzmaker, MD<sup>1</sup>, David C. Ayers, MD<sup>1</sup>, Anthony L. Schwagerl, MD, PhD<sup>2</sup>  
<sup>1</sup>Department of Orthopedic Surgery, UMass Memorial Medical Center;  
<sup>2</sup>Long Island Anesthesiologists

**68. Defining Success in Perioperative Care Pathways for Hip Fracture Patients**

Hayden Rockson, MD, MA<sup>1</sup>, Brian Clair, MD<sup>1</sup>, Christine Motzkus<sup>2</sup>, Amrit Vinod<sup>2</sup>, Michael Schoor, MD<sup>3</sup>, Matthew Stebulis, MD<sup>3</sup>, Mark Kraus, MD<sup>1</sup>  
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<sup>2</sup>University of Massachusetts Medical School; <sup>3</sup>Department of Anesthesia and Perioperative Care, UMass Memorial Medical Center

**69. Assessment of a Novel Pediatric Resident Simulation Curriculum**

Kyle Schoppel MD<sup>1</sup>, Christopher Lops MD<sup>2</sup>, Nicholas Cormier<sup>3</sup>, Alanna Hickey<sup>3</sup>, Suzanne Sprague MD<sup>1</sup>, Peter Sell DO<sup>4</sup>, Kathryn Wynne MD<sup>5</sup>, Anne Weaver, BSN RN CCRN<sup>6</sup>, Stacey Valentine MD, MPH<sup>4</sup>  
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**70. Development and Evaluation of a Mentorship to Hire Program for Facilitating Nursing Role Development and Transition to Practice**

Monika S. Schuler, PhD, RN, CNE  
College of Nursing, University of Massachusetts Dartmouth

**71. Feasibility, Safety and Acceptability of Soy-Based Diet for Pregnant Women: Preliminary Results from a Pilot Randomized Controlled Trial**

Ling Shi, PhD<sup>1</sup>, Vidya Iyer, MD<sup>2</sup>, Errol Norwitz, MD<sup>2</sup>, Tiffany A. Moore Simas, MD<sup>3</sup>, Nirupa R Matthan, PhD<sup>4</sup>, Alice H. Lichtenstein, ScD<sup>4</sup>, Laura L. Hayman, PhD<sup>1</sup>

<sup>1</sup>University of Massachusetts Boston; <sup>2</sup>Tufts Medical Center; <sup>3</sup>University of Massachusetts Medical School; <sup>4</sup>JM USDA Human Nutrition Research Center on Aging, Tufts University

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

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

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

Heidi L. Smith, MD, PhD<sup>1</sup>; Maria Lobikin, PhD<sup>1</sup>; Wenda Gao, PhD<sup>2</sup>; Greg Saia, PhD<sup>1</sup>; Yang Wang, PhD<sup>1</sup>; Mark Leney, PhD<sup>1</sup>; Deborah C. Molrine, MD, MPH<sup>1</sup>  
<sup>1</sup>MassBiologics of UMMS, Boston, MA; <sup>2</sup>Antagen Pharmaceuticals, Boston, MA

**74. Caste Matters: Perceived Discrimination among Women in Rural India**

Apurv Soni<sup>1</sup>, Jasmine Khubchandani<sup>1</sup>, Nisha Fahey<sup>1</sup>, Nitin Raithatha<sup>2</sup>, Anusha Prabhakaran<sup>2</sup>, Nancy Byatt<sup>1</sup>, Tiffany A Moore Simas<sup>1</sup>, Ajay Phatak<sup>2</sup>, Milagros Rosal<sup>1</sup>, Somashekhar Nimbalkar<sup>2</sup>, Jeroan J Allison<sup>1</sup>  
<sup>1</sup>University of Massachusetts Medical School; <sup>2</sup>Pramukhswami Medical College, Karamsad, India

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

Apurv Soni<sup>1</sup>, Nisha Fahey<sup>1</sup>, Harshil Patel<sup>2</sup>, Kandarp Talati<sup>2</sup>, Anna Handorf<sup>1</sup>, John Bostrom<sup>1</sup>, Shyamsundar Raithatha<sup>2</sup>, Ravi Shah<sup>1</sup>, Sunil Karna<sup>2</sup>, Robert Goldberg<sup>1</sup>, Jeroan J. Allison<sup>1</sup>, Ki Chon<sup>3</sup>, Somashekhar Nimbalkar<sup>2</sup>, David D. McManus<sup>1</sup>  
<sup>1</sup>University of Massachusetts Medical School; <sup>2</sup>Pramukhswami Medical College, Karamsad, India; <sup>3</sup>University of Connecticut, Storrs

**76. Exploring the Contributions of Local Health Departments in Land Use and Transportation Policy: Implications for Cross-sector Collaboration**

Meera Sreedhara, MPH<sup>1</sup>, Karin Valentine Goins, MPH<sup>1</sup>, Semra Aytur, PhD<sup>2</sup>, Katie Heinrich, PhD<sup>3</sup>, Jay Maddock, PhD<sup>4</sup>, Stephenie Lemon, PhD<sup>1</sup>  
<sup>1</sup>University of Massachusetts Medical School; <sup>2</sup>University of New Hampshire; <sup>3</sup>Kansas State University; <sup>4</sup>Texas A&M University

**77. Imaging Probes for Detecting Inflammation in the Mouse Model of Type 1 Diabetes**

Toloo Taghian, PhD<sup>1</sup>, Suresh Gupta, PhD<sup>1</sup>, Adam J. Dixon, PhD<sup>2</sup>, Surong Zhang, PhD<sup>1</sup>, Alexei A. Bogdanov, PhD<sup>1</sup>

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**78. Companion Diagnostics for Breast Cancer Chemotherapeutics**

Monica Tawadros, BS<sup>1</sup>, Michael Morin, PhD<sup>1</sup>, Peter Gaines, PhD<sup>1</sup>, Abiche Dewilde, PhD<sup>2</sup>

<sup>1</sup>Department of Biological Sciences, University of Massachusetts Lowell; <sup>2</sup>InVitroMetrix Corporation, Lowell MA

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

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

<sup>1</sup>Department of Public Health, University of Massachusetts Lowell; <sup>2</sup>Centers for Behavioral and Preventive Medicine, The Miriam Hospital, RI; <sup>3</sup>Alpert Medical School, Brown University, RI

**80. Inhibition of Insulin Amyloid Formation by Small Organofluorine Molecules**

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

**81. Home Interventions for Older Adults with Asthma**

David A. Turcotte, ScD<sup>1</sup>, Susan Woskie, PhD<sup>2</sup>, Emily Chaves, MA, MS<sup>1</sup>, Kelechi Adejumo, MS<sup>2</sup>, Rebecca Gore, PhD<sup>2</sup>

<sup>1</sup>Center for Community Research and Engagement, <sup>2</sup>Department of Public Health, University of Massachusetts Lowell

**82. Pediatric Critical Care Transfusion and Anemia Expertise Initiative**

Stacey Valentine, MD, MPH<sup>1</sup>, Scot Bateman, MD<sup>1</sup>, Mela Bembea, MD<sup>2</sup>, Phillip Spinella, MD<sup>3</sup>, Allan Doctor, MD<sup>3</sup>, Nabil Hassan, MD<sup>4</sup>, Robert Parker, MD<sup>5</sup>, Marie Steiner, MD<sup>6</sup>, Marisa Tucci, MD<sup>7</sup>, Jacques Lacroix, MD<sup>7</sup>

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<sup>7</sup>Department of Pediatrics, University of Montreal, Montreal, Quebec, Canada

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

Aditya Vaze MD<sup>1</sup>, David McManus MD\*<sup>2</sup>, Kevin Donahue MD\*<sup>2</sup>

<sup>1</sup>Department of Medicine, <sup>2</sup>Division of Cardiology, Department of Medicine, University of Massachusetts Medical School (\*contributed equally as senior authors)

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

Praveena Velpurisiva, MS<sup>1,5</sup>, Brandon Piel, BS<sup>2</sup>, Jack Lepine, MS<sup>3</sup>, Prakash Rai, PhD<sup>4,5</sup>

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**85. Optimizing Microfluidic Design for Cell Separation**

Joseph Wakim<sup>1</sup>, Marisel De Jesús Vega<sup>1</sup>, Nese Orbey<sup>1</sup>, Carol Barry<sup>2</sup>

<sup>1</sup>Department of Chemical Engineering, <sup>2</sup>Department of Plastics Engineering, University of Massachusetts Lowell

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

Angela Wangari Walter, PhD, MPH, MSW<sup>1</sup>, Jessica Hall, MSW<sup>2</sup>, Deborah Chassler, MSW<sup>2</sup>, Rachel Mullins, BS<sup>2</sup>, Dilia DeJesus, MTS<sup>3</sup>, Emily Stewart, BA<sup>3</sup>, Lena Lundgren, PhD<sup>2</sup>

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

Victoria J. Wang, BS<sup>1</sup>, David D. McManus, MD, ScM<sup>2</sup>, Hong Yu, PhD, FACMI<sup>1</sup>

<sup>1</sup>Department of Quantitative Health Sciences, <sup>2</sup>Department of Medicine, University of Massachusetts Medical School

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

Yang Wang, MD, PhD<sup>1</sup>, Seleeke Flingai, PhD<sup>2</sup>, Aurélie Kern, PhD<sup>3</sup>, Sangya Agarwal, MS<sup>2</sup>, Zachary Schiller, MS<sup>1</sup>, Kaori Graybeal, MS<sup>1</sup>,

Rianne Esquivel, PhD<sup>2</sup>, Ami Patel, PhD<sup>2</sup>, Linden Hu, MD<sup>3</sup>, David Weiner, PhD<sup>2</sup>, Mark Klempner, MD<sup>1</sup>

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

Huimin Yan, PhD<sup>1</sup>, Keyshla M Melendez-Rosado, BS<sup>1</sup>, and Robert C Hickner, PhD<sup>2</sup>

<sup>1</sup>Department of Exercise and Health Sciences, University of Massachusetts Boston; <sup>2</sup>Department of Nutrition, Food and Exercise Sciences, Florida State University

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

Sayed Yasmin-Karim, MBBS, PhD<sup>1</sup>, Michele Moreau, MSc<sup>1,2</sup>, Wilfred Ngwa, PhD<sup>1,2</sup>

<sup>1</sup>Brigham and Women's Hospital, Dana Farber Cancer Institute, Harvard Medical School, Boston, MA; <sup>2</sup>University Massachusetts Lowell

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

Hua Zheng, PhD<sup>1</sup>, Bengisu Tulu, PhD<sup>2</sup>, Wonchan Choi, PhD<sup>2</sup>, Patricia Franklin, MD, MBA, MPH<sup>1</sup>

<sup>1</sup>University of Massachusetts Medical School; <sup>2</sup>Worcester Polytechnic Institute, Worcester, MA

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

Hua Zheng, PhD; Celeste Lemay, RN, MPH; Wenyun Yang, MS; Patricia Franklin, MD, MBA, MPH  
University of Massachusetts Medical School

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

Kai Zou, PhD<sup>1</sup>, J. Matthew Hinkley, PhD<sup>2</sup>, Sanghee Park, PhD<sup>2</sup>, Donghai Zheng, PhD<sup>2</sup>, G. Lynis Dohm, PhD<sup>2</sup>, Joseph A. Houmard, PhD<sup>2</sup>

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