
Laura Bix, Ph.D.

Laura Bix, Ph.D.
155 Packaging
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POSITION TITLE

School of Packaging- Michigan State University
Professor/Associate Director

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Michigan State University, East Lansing, MI	Ph.D.	2001	Packaging
Michigan State University, East Lansing, MI	MS	1998	Packaging
Michigan State University, East Lansing, MI	BS	1993	Packaging

Academic Positions

- School of Packaging- Michigan State University---*Professor* – July 2016 to present
- School of Packaging- Michigan State University—*Associate Director* – April 2015 to present
- School of Packaging- Michigan State University—*Associate Professor* – July 2009 to present
 - Research Experience
 - Packaging HUB (Healthcare Universal Design and Biomechanics) – January 2002 to present
 - Mission: *To improve health through packaging.* To do so, we primarily focus our efforts on healthcare products, though occasionally we work with food and beverages. This is a multidisciplinary program that centers on packaging as a way to: reduce medication errors, enhance patient compliance, reduce healthcare acquired infections and induce the selection of healthier foods.
 - Teaching Experience
 - Broad spectrum of teaching experiences, including: core and elective, large and small classrooms, graduate and undergraduate, traditional and online classes, introductory to capstone to graduate in varied topics which include: Medical Packaging (PKG 452- developed online content), Packaging Laws and Regulations (PKG 480), Packaging Development (PKG 485), Packaging with Plastics (PKG 323), Polymeric Packaging Materials (PKG 825), Principles of Scholarship (PKG 826/860- co developed), Principles of Packaging (PKG 101), and Writing in the Sciences (NSC 840)
- School of Packaging- Michigan State University—*Chair of the Strategic Planning Efforts*- August 2014- January 2015
 - This effort was encompassing; it included the production of a vision and strategy for forward path across all aspects of the mission, in addition to requests for necessary resources and a proposal for acquiring the same.
- School of Packaging- Michigan State University –*Assistant Professor* - January 2002 to June 2009
- Department of Packaging Science- Clemson University –*Adjunct Faculty*– July 2008 to present

Industry Positions

- Mebane Packaging Group (Garner, NC facility)- *Personnel Director* — December 1995 to July 1996
- Mebane Packaging Group (Garner, NC facility)- *Leadership Through Quality Director* — July 1994 to December 1995
- Mebane Packaging Group (Garner, NC facility)- *Structural Designer/Estimator* –June 1993 to July 1994
- Rock-Tenn Company (Norcross, GA facility)- *Design Intern* — August 1992 to June 1993

Professional Distinctions

- Selected and sponsored as the faculty opponent for Giana Lorenzini, PhD Candidate at Lunds Universitet. May 18, 2018. "Toward Inclusive Pharmaceutical Packaging: An innovation and design process perspective." Lund, Sweden.
- Invited, sponsored member of an expert panel convened by the US Food and Drug Administration (FDA) to participate in public hearing December 11-12, 2017. Washington, DC
- Invited, sponsored member of an expert panel convened by the Duke Margolis Center on behalf of the US Food and Drug Administration (FDA), presenting at "Exploring Packaging, Storage and Disposal Solutions to Enhance Opioid Safety." June 1, 2017.
- Invited Member of the Advisory Committee of the MSU/Sparrow Center for Innovation and Research (Lansing, MI) January 2017-Present
- Selected as a Faculty Fellow serving the Office of Academic and Student Affairs (OASA) within the Dean's Office for the College of Agriculture and Natural Resources January 2017-January 2018
- Invited Member of the International Packaging Institute's (IPI- Schaffhausen, Switzerland) Scientific Board 2015-Present
- Selected as a Committee on Institutional Cooperation (CIC) Academic Leadership Program (ALP) Fellow 2015-2016
- Appointed, sponsored expert to PROTECT and PROTECT Rx, two Medication Safety Initiatives convened by the US Centers for Disease Control and Prevention (CDC). Initiatives are intended to reduce the number of unintentional poisonings in children that result from exposure to medication (2012-present).
- Appointed, sponsored expert to a panel jointly convened by the Gerontological Society of America (GSA) and the Consumer Healthcare Products Association (CHPA). Identified gaps in knowledge relating to medication use by older adults with the intention of lobbying funding opportunities and catalyzing research in the area (Washington, DC). (2012-2014)
- Invited and sponsored as a usability expert to review the approach proposed by the Danish Technological Institute in assessing physical function regarding package opening. Travel funding provided by the Danish government (Taastrup, Denmark).
- Selected as one of *Medical Device and Diagnostic Industry's* 100 notable people of 2008
- Selected as the US Expert on the ISO TC 122 Group, April, 2007
- Selected as the Lead Examiner for Jennifer Wearn, a PhD candidate in the Department of Mechanical Engineering at the University of Sheffield (Sheffield, UK)
- Invited member of the Editorial Board of *Pharmaceutical and Medical Packaging News* (Los Angeles, CA) September 2006 – present
- Selected to serve as a juror for the Glass Packaging Institute's Clear Choice Awards 2006
- Invited member of the Editorial Board of the *Journal of Testing and Evaluation* (West Conshohocken, PA) November, 2005 – present
- Invited member of the Advisory Board of *Medical Device Developments* (Nottingham, UK) September 2005 –present
- Selected to serve as a juror for the Institute of Packaging Professionals (IoPP) Ameristar Awards 2005 (Pharmaceutical/Drug Category, Medical Device Category and Promotional Category)
- Selected to serve as a juror for the Institute of Packaging Professionals (IoPP) Ameristar Awards 2004 (Pharmaceutical/Drug Category, Medical Device Category and Promotional Category)
- Selected to serve as a juror for the Medical Design Excellence Awards 2004-2006 (General Hospital and Packaging Categories)

Honors

- Recipient- 2014 Phi Kappa Phi Excellence in Interdisciplinary Scholarship Award
- Best Paper Award, 5th Annual Cambridge Workshop on Universal Access and Assistive Technology Conference (CWUAAT), Cambridge University, UK- Fitzwilliam College for "User-pack interactions: Insights for designing inclusive child-resistant packaging."

- Recipient- Children’s Central and Michigan Children’s Trust Fund Innovation Award Winner- \$2,000, November 2009
- Recipient- College of Agriculture and Natural Resources Excellence in Teaching Award-\$3,000 Award (New Teacher Category), May 2007
- Honored at Spartan Volleyball’s “Faculty Night” as a student-athlete’s favorite Professor Fall 2002
- Submitted a proposal chosen as one of the four best proposals written for the Office of the Vice President for Research and Graduate Studies grant writing competition Fall 2001 – Awarded \$2,000
- Awarded Label Packaging Suppliers Council Ph.D. Candidate Award Fall 1998

Committees

- ASTM International D-10 – Committee on Packaging
 - Vice-Chair of ASTM International’s Committee D10.32 (Committee on Consumer, Pharmaceutical and Medical Packaging) 2003-2008
- ASTM International F-02 – Committee on Flexible Barrier Material 2001-2008
- Institute of Packaging Professionals (IOPP) Technical Committee on Medical Device Packaging
- Member of the Include Network, Royal College of Art, London, UK.

Peer-reviewed publications

Bold denotes **Graduate Advisee**, Italicized text denotes *Undergraduate Advisee*, Underlined text denotes Contact Author

Articles In Progress

Lee, JY; Ladoni, M and Bix, L. (In progress). “Interactive placement as a strategy for enhanced attention to prescription warning labels: What pharmacists need to know about label positioning.”

Cussen, A., **Trier, T.**, Bix, L. L., and Bush, T. R. (In progress). Identification and quantification of biomechanical factors associated with opening chevron-style packages.

Articles

Chen, R; Bello, NM; Becker, MW and Bix, L. (In Revision). “Chasing red herrings: Can visual distracters extend the time children take to open child resistant vials?” *Public Library of Science One (PLoS One)*.

Perez, P; Bush, T. R, Pan, W and Bix, L. (Under Review). “Objective investigation of the role of peel geometry on a contact between medical devices and non-sterile surfaces during aseptic transfer.” *Packaging Technology and Science*.

Perez, P; Bush, TR; Pan, W, Miller, L and Bix, L. (Under Review). “Reducing levels of medical device contamination through package redesign and opening technique. *Public Library of Science One (PLoS One)*.

Becker, MW; *Brunk, E.*; *Cwiakala, K* and Bix, L. (Under Review). “Munchy Monster: Using video gaming to objectively evaluate front of pack labeling strategies for school-aged children.” *Packaging Technology and Science*.

Twede, D and Bix, L. (2017). “The advent of university-level packaging scholarship: The time, the place and the people.” *Journal of Applied Packaging Research*. Vol 9(3). Article 3. Available at <http://scholarworks.rit.edu/japr/vol9/iss3/3>

Bix, L.; **Seo, DC**; Ladoni, M; *Brunk, E* and Becker, MW. (November 8, 2016). “Evaluating varied label designs for use with medical devices: Optimized labels outperform existing labels in the correct selection of devices and time to select.” *Public Library of Science One (PLoS One)*. Available at: <http://dx.doi.org/10.1371/journal.pone.0165002>

Seo, D; Ladoni, M ; *Brunk, E* ; Becker, MW and [Bix, L.](#) (2016). "Do healthcare professionals comprehend standardized symbols present on medical device packaging?: An important factor in the fight over label space." *Packaging Technology and Science*. DOI 10.1002/pts.2199 available at: <http://onlinelibrary.wiley.com/doi/10.1002/pts.2199/full>

[Becker, MW](#); **Sundar, RP**, Bello, NM; Alzahabi, R; Weatherspoon, L and Bix, L. (May, 2016). "Assessing attentional prioritization of front-of-pack nutrition labels using change detection." *Journal of Applied Ergonomics*.54:20-99. Doi:10.1016/j.apergo.2015.11.014.Epub 2015 December 28. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26851468>

[Bix, L](#) ; **Sundar, RP** ; Bello, NW ; Peltier, C ; Weatherspoon, L and Becker, MW. (2015). "To see or not to see: How varying design in nutritional labeling impacts attention." *Public Library of Science One (PLoS One)*. 10(10):30139732.doi.10.1371/journal.pone.0139732. <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0139732>

Becker, MW ; Bello, NM ; **Sundar, RP** ; Peltier, C and [Bix, L.](#) (2015). "Front of pack labels enhance attention to nutrition information in novel and commercial brands." *Food Policy*. 56. Pp. 76-86. DOI10.1016/j.foodpol.2015.08.001. <http://www.sciencedirect.com/science/article/pii/S0306919215001001>

Leitkam, ST ; Bix, L ; **de la Fuente, J** and [Bush, TR.](#) (2015). "Mapping kinematic functional abilities of the hand to three dimensional shapes for inclusive design." *Journal of Biomechanics*. Pii:S0021-9290(15)00245-6. Doi: 10.1016/j.jbiomech.2015.04.025

DeHenau, C ; Becker, MW ; Bello, NM ; **Liu, S** and [Bix, L.](#) (2015). "Tallman lettering as a strategy for differentiation in look-alike, sound-alike drug names: The role of familiarity in differentiating drug doppelgangers." *Journal of Applied Ergonomics*.52:77-84. <http://dx.doi.org/10.1016/j.apergo.2015.06.009>.

Trier, T ; Bello, NM ; Bush, TR and [Bix, L.](#) (2014). "The role of packaging size on contamination rates during simulated presentation to a sterile field." *Public Library of Science One (PLoS One)*. 9(7).1-5 <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0100414> DOI 10.1371/journal.pone.0100414.

de la Fuente, J ; **Gustafson, S** and [Bix, L.](#) (2014). "An affordance based methodology for package design." *Packaging Technology and Science*. 28(2)157-171. Available at: <http://onlinelibrary.wiley.com/doi/10.1002/pts.2087/abstract>. DOI 10.1002/pts.2087

[Albert, S](#); Bix, L; Bridgeman, M; Cartensen, L; Dyer-Chamerlain, M; Neafsey, P and Wolf, M. (2014). "Promoting safe and effective use of OTC medications among older adults: Summary and recommendations from the CHPA-GSA national Summit on over-the-counter medication behaviors of older adults." *The Gerontologist*. 54(6):909-918. DOI 10.1093/geront/gnu034.

Leitkam, S ; [Bush, TR](#) and Bix, L. (2014). "Determining functional finger capabilities of healthy adults: Comparing experimental data to a biomechanical model." *The American Society of Mechanical Engineers (ASME) Journal of Biomechanical Engineering*. 136(2). DOI 10.1115/1.4026255.

Kassarjian, O; Bello, N; [Bix, L](#); Burgess, G. and Linz, J (2014). "Examining the effect of secondary packaging on microbial penetration into sterile trays used to package medical devices." *Journal of Applied Packaging Research*. 6(1); Article 1. Available at: <http://scholarworks.rit.edu/japr/vol6/iss1/1>

[Bix, L](#); **Seo, W** and **Sundar, RP**. (2013). "The effect of colour contrast on consumers' attentive behaviours and perception of fresh produce." *Packaging Technology and Science*. 26(2).96-104. DOI 10.1002/pts.1972.

Bush, T; [Bix, L](#); Bello, NM and **Fair, J**. (2013). "Differences in the kinematics of restrained and unrestrained conditions of opening for two sizes of glass jar." *Packaging Technology and Science*. 26(2). 105-113. DOI 10.1002/pts.1965.

Sundar, RP ; Becker, MW, Bello, NM. and Bix, L (2012). “Quantifying age-related differences in information processing behaviors when viewing prescription drug labels.” *Public Library of Science One (PLoS One)*. DOI:10.1371/journal.pone.0038819.

Gawasane, A; Bix, L; de la Fuente, J; Sundar, R. and *Smith, T.* (2012). “Consumer attention to an OTC warning in four different styles of design.” *Packaging Technology and Science*. 25(7).385-396. DOI 10.1002/pts.979.

Bix, L; Kosugi, W; Bello, NM; **Sundar, RP** and Becker, MW. (November, 2010). “The use of change detection as a method of objectively evaluating labels.” *Packaging Technology and Science*. 23.(7).P.393-401. (DOI: 10.1002/pts.904).

Auras, R; Bali, VA and Bix, L. (2010). “Student opinions of a student response system for introductory packaging classes.” *North American Colleges and Teachers of Agriculture (NACTA) Journal*. 54(3).2-8.

Yoxall, A; Langley, J; Jason, R; Lewis, R; Wearn, S; Hayes, A and Bix, Laura. (January-February, 2010). “How wide do you want the jar”? *Packaging Technology and Science*. 23(1). 11-18.

Bix, L; Bello, NM; Auras, R; *Ranger, J* and Lapinski, M. (April 21, 2009). “Examining the conspicuousness and prominence of two required warnings on OTC pain relievers.” *Proceedings of the National Academy of Sciences of the United States of America*. 106(16). Pp. 6550-6555.

Bix, L; **de la Fuente, J;** Pimple, K and **Kou, E.** (July, 2009). “Is the test of senior friendly/child resistant packaging ethical”? *Health Expectations*. 12(4).Pp 430-437. (DOI:10.1111/j.1369-7625.2009.00534.x).

Lindstrom-Hazel, D; Kratt, A and Bix, L. (March/April, 2009). “Inter-Rater Reliability of Occupational Therapy Students Using the Jamar Hand Dynamometer and B&L Engineering Pinch Gauge.” *American Journal of Occupational Therapy*.63(2). Pp. 193-197.

Taylor, W; Fotis, N and Bix, L. (October, 2008). “Utilizing Hypothesis Testing to Determine Sample Size for Medical Packaging Validation.” *Medical Device and Diagnostic Industry*. 30(10).Pp.60-66.

Bix, L and Clarke, R. (November, 2007). “From Information Silo to Bridge, Part II: The Current State of a Unique Device Identification System.” *Medical Device and Diagnostic Industry*. 29(11). Pp. 62-71.

Bix, L and Clarke, R. (October, 2007). “From Information Silo to Bridge: The Current State of a Unique Device Identification System.” *Medical Device and Diagnostic Industry*. 29(10).Pp.70-77.

Auras, R and Bix, L. (May/June, 2007). “WAKE UP! Using a Student Response System in Packaging Classes.” *Packaging Technology and Science*. 20(3).Pp. 183-195. (DOI: 10.1002/pts.753).

Severin, J; Bix, L; Linz, J; Gilliland, D and Lockhart, H. (January, 2007). “A New Methodology for Whole-Package Microbial Challenge Testing for Medical Device Trays.” *Journal of Testing and Evaluation*. 35(4). Pp. 373-380.

Bix, L; Kassarian, O; Cardoso, F and Lockhart, H. (November/December, 2005). “Using Scanning Electron, Confocal and Optical Microscopy to Measure Microscope Holes in Trays.” *Packaging Technology and Science*.18(6). Pp.311-320.

Sujit, S; Bix, L; Clarke, R and Pawaskar, M. (April-June, 2005). “Drug Information Obscured on OTC Medication Labels by External Tags.” *Drug Information Journal*. 39(2). Pp159-170.

Bix, L; Sansgiry, S; Clarke, R; Cardoso, F and Shringarpure, G. (January/February, 2004). "Retailer Tagging Practices: A Potential Liability"? *Packaging Technology and Science*. 17(1). Pp.3-11.

Bix, L; **Kassarjian, O**; **Iwaszkiewicz, R** and **Severin, J**. (2004). "Examining defects of various sizes in device packaging." *Business Briefing: Global HealthCare- Medical Device Manufacturing and Technology 2004*. Pp. 72-77.

Gilliland, D; Bix, L and Lockhart, H. (October, 2004). "Sterile Medical Device Packaging: Statistics and Sample Sizes in Operational Qualifications." *Medical Device and Diagnostic Industry*. 26(10). Pp.72-77 (Translated into Chinese for *China Medical Device Manufacturer (CMDM)*).

Bix, L; Lockhart, H; Selke, S; Cardoso, F and *Olejniak, M*. (September/October, 2003). "Is x-height a Better Indicator of Legibility than Type Size for Drug Labels"? *Packaging Technology and Science*. 16(5).Pp. 199-207.

Bix, L; Lockhart, H; Cardoso, F and Selke, S. (Spring 2003). "The Effect of Color Contrast on Message Legibility." *The Journal of Design Communication*. <http://scholar.lib.vt.edu/ejournals/JDC/Spring-2003/colorcontrast.html> The scholarly communications project. Virginia Tech.

Bix, L; Lockhart, H; Cardoso, F and Selke, S. (2003) "Testing FDA's mandate for over-the-counter medication labels." *The Journal of Pharmaceutical Marketing and Management* 15(4). Pp.17-36.

Bix, L. (Spring, 2002). "The elements of text and message design and their impact on message legibility: A literature review." *The Journal of Design Communication*. <http://scholar.lib.vt.edu/ejournals/JDC/> The scholarly communications project. Virginia Tech.

Book chapter

Bold denotes **Graduate Advisee**, Italicized text denotes *Undergraduate Advisee*, Underlined text denotes Contact Author

de la Fuente, J and Bix, L. (2010). "User-pack interaction: Insights for designing inclusive child-resistant packaging." In: Designing Inclusive Interactions. Editors: Langdon, P; Clarkson, J and Robinson, P. Springer-Verlag, London, UK. Pp. 89-100. DOI 10.1007/978-1-84996-166-0.

Bix, L and **de la Fuente, J** (2009). "Medical Device Packaging." In: The Wiley Encyclopedia of Packaging. 3rd Edition. Editor: Yam, Kit. Pp. 713-726.

Bix, L; **de la Fuente, J**; **Sundar, RP** and Lockhart, Hugh. (2009). "Packaging Design and Development. In The Wiley Encyclopedia of Packaging. 3rd Edition. Editor: Yam, Kit. Pp.859-866.

Fair, J; Bix, L and Bush, TR. (2008). "Chapter 5- Biomechanical Analysis of Opening Glass Jars. In Designing Inclusive Futures. Editors: Langdon, P; Clarkson, J and Robinson, P. Springer-Verlag, London, UK. (DOI 10.1007/978-1-84800-211-1).

Presentations/Webinar

Bold denotes **Graduate Advisee**, Italicized text denotes *Undergraduate Advisee*, Underlined text denotes Presenter

Bix, L. and **Perez, P**. (February 6, 2018). "How hard is it to open that medical device anyway?" Medical Device Manufacturing West. Education Pavillion hosted by *Packaging Digest*. Available at: <https://www.facebook.com/packagingdigestmagazine/videos/982497891901701/> Anaheim, CA. February 6-8, 2018.

Bix, L and Smith, MK. (January 12, 2018). “Nontraditional research collaborations: Novel lines of inquiry and innovative solutions.” Society for Simulation in Healthcare Forum on Modeling and Simulation. Los Angeles, CA January 12-13, 2018.

Bix, L. (December 11, 2017). “Poison prevention, product safety and development: Preventing unintentional exposures.” Public workshop on packaging, storage and disposal options to enhance opioid safety: Exploring the path forward.” US Food and Drug Administration (FDA)/ Department of Health and Human Services (DHHS). Docket # FDA-2017-N-5897. Silver Springs, MD. December 11-12, 2017.

Bix, L. (June 27, 2017). “Methods for Objective Evaluation of Graphics and Text.” Invited presentation to faculty and students at Beijing Institute of Graphic Communication (BIGC). Beijing, China.

Bix, L. (June 25, 2017). “Quantifying the interface between People and Packaging.” Invited presentation to faculty and students at Nanjing Forestry University. Nanjing, China

Bix, L. (June 21, 2017). “Quantifying the Effect of Package Design on Provider Ability to Transfer Products to the Sterile Field.” Council of International Innovative Packaging Symposium (China, Japan, Korea and Thailand). Wuhan University. Wuhan, China.

Bix, L (June 1, 2017). Panelist- “Approaches to evaluating the impact of packaging, storage and disposal solutions to deter misuse, abuse and inappropriate access.” Exploring packaging, storage and disposal solutions to enhance opioid safety. Duke Margolis Center for Health Policy on behalf of the US Food and Drug Administration (FDA). Washington, DC.

Twede, D and Bix, L. (May 11, 2017). “The advent of university-level packaging scholarship: The time, the place and the people.” 28th International Association of Packaging Research Institutes (IAPRI) Symposium. Lausanne, Switzerland.

de la Fuente, J, Burgess, G ; Bix, L ; Leitkam, S ; Drost, J and Bush, TR (May 10, 2017). 28th International Association of Packaging Research Institutes (IAPRI) Symposium. Lausanne, Switzerland.

Smith, MK and Bix, L (April 25, 2017). “The Fruits of an unusual collaboration.” Webinar for the Society for Simulation in Healthcare’s Healthcare Systems Modeling and Simulation Affinity Group.

Bix, L and Bush, T. (April 11, 2017). “How design and biomechanics influence aseptic transfer of sterile devices.” Human Factors of Medical Devices Conference. University of Minnesota. Minneapolis, MN.

Bix, L and Estrada, E. (March 9, 2017). “Objective evaluation of label design.” HealthPack 2017. Denver Co.

de la Fuente, J ; Tachibana, D ; Leemon, K ; Roy, S ; Liu, C ; Twomey, C ; Bix, L and Bisheff, S. (June, 2015). “Measuring the effect of affordances on medical device packaging.” 2015 Annual Symposium of the International Association of Packaging Research Institutes (IAPRI). Valencia, Spain.

Bix, L. (June 9, 2015). “The future of pharmaceutical packaging and labeling.” PharmaPack North America. New York, NY.

Bix, L and Lui, L. (May 14, 2015). “Innovative methods for understanding consumer behavior.” 2015 Regulatory, Scientific and Quality Conference. Consumer Healthcare Products Association (CHPA). Washington, DC.

Bix, L and Young, D. (December 3, 2014). “Consumer insights in packaging: Quantifying perception and cognition.” Business Review Webinars: ESKO Art.
<http://www.business-review-webinars.com/webinar/Food & Beverage/Consumer Insights in Packaging Quantifying Perception and Cognition-pkz91fxW>

Bix, L ; **Chen, R** ; Bello NM and Becker, MW. (November 13, 2014). “The red herring project: An innovative way to protect children from unintentional poisoning.” Invited presentation for the Medication Safety Program’s PROTECT Initiative. Centers for Disease Control and Prevention (CDC). Atlanta, GA.

Bix, L and Young, D. (September 11, 2014). “Human interaction with packaging research: What we learned and the potential for better performing communication between packaging and users.” Young Leaders Development Meeting of the Tag and Label Manufacturers Industry. East Lansing, MI.

Bush, TR; Leitkam, S; **de la Fuente, J** and Bix, L. (July 8, 2014). “Functional modeling of the hand and its use in device design.” Invited talk at the American Society of Mechanical Engineers (ASME).

Bix, L; **de la Fuente, J.** and **Gustafson, S.** (March 11, 2014). “Application of affordance in medical device packaging: How to design intuitively.” HealthPack. Albuquerque, NM.

Albert, SM; Bix, L; Bridgeman, M; Sirois, J. (November, 2013). “OTC Medication Behaviors of Older Adults.” Optimal Aging through Research: Annual Scientific Meeting of the Gerontological Society of America. New Orleans, LA. November 20-24, 2013.

Bix, L. (October 25, 2013). “Quantifying the interface between people and packaging.” Institute of Packaging Professionals, Cincinnati Chapter Fall Conference. Cincinnati, OH.

Bix, L. (September 17, 2013). “Quantifying the interface between people and packaging.” Medical Device Packaging Seminar. International Packaging Institute (IPI) Zurich, Switzerland.

Bix, L. (June 29, 2013). “Emerging tools to quantify behavior and ability in patients.” Invited to the SIES School of Packaging. Mumbai, India.

Bix, L. (June 28, 2013). “Drug labeling: An overview of US legislation and regulation.” InnoPack Pharma Conference. Mumbai, India.

Bix, L. (June 27, 2013). “Emerging tools to quantify behavior and ability in patients.” InnoPack Pharma Conference. Mumbai, India.

Bix, L; **Sundar, RP**; **Lee, JY**; Becker, MW and Bello, NM. (May 11, 2013). “Attention: Drug WARNING!” Ambalaj 2013. Izmir, Turkey.

Bix, L. (May 9, 2013). “Quantifying the interactions between people and packaging.” Ambalaj 2013. Izmir, Turkey.

May, A; Heilig, C. and Kelly, M. (mentors: Becker, MW; Bix, L and Danovitch, J). (April 12, 2013). “Children’s use of front-of-package labels to recognized healthy and unhealthy foods.” University Undergraduate Research and Arts Forum, Michigan State University. East Lansing, MI.

Bix, L. (March 5, 2013). “Emerging tools to quantify behavior and ability in patients.” 2nd World Seminar on Accessible and Inclusive Design. Verpakkingscentrum, Netherlands.

Smith, MK and Bix, L. (January 30, 2013). “Thinking inside the box: Improving patient safety.” International Meeting on Simulation in Healthcare, The Society of Simulation in Healthcare. Orlando, FL.

Bix, L. (January 18, 2013). “Packaging HUB (Healthcare, Universal Design and Biomechanics.)” Invited to present a colloquium introducing my work to combined research teams comprised of Karen Adolph (the Infant Action lab at New York University (NYU)) and Jeffrey Lockman’s (Infant and Toddler Development Lab at Tulane University) graduate students. New York, New York.

de la Fuente, J. and Bix, L. (March 23, 2010). "User-pack interaction: Insights for designing inclusive child-resistant packaging." The 5th Cambridge Workshop on Universal Access and Assistive Technology (CWUAAT): Designing Inclusive Interactions: Inclusive interactions between people and products in their contexts of use." Fitzwilliam College, Department of Engineering. University of Cambridge. March 22-25, 2010.

Bix, L. (November 2, 2012). "The red herring project: Innovation to protect children." Invited presentation for the Medication Safety Program's PROTECT Initiative. Centers for Disease Control and Prevention (CDC). Atlanta, GA.

Bix, L. ; Seo, W ; Sundar, RP . (June, 2012). "The effect of color contrast on consumers' attentive behaviors and perception of fresh produce. " 18th Annual International Association of Packaging Research Institutes Meeting (IAPRI). San Luis Obispo, CA.

Koutsimanis, G; Harte, J; Beaudry, R; Bix, L; Harte, B and Almenar, ER. (June 18, 2012). "Development of a new packaging approach for fresh produce: A case study on fresh cherries under domestic and international supply chain conditions." 18th Annual International Association of Packaging Research Institutes Meeting (IAPRI). San Luis Obispo, CA.

Bix, L. and **Smith, MK.** (June 7, 2012). "Understanding user needs through simulation: Michigan State's Medical Simulation and Packaging Programs." Opal Events Third Annual Pharmaceutical Supply Chain and Packaging Summit. Baltimore, MD.

Bix, L. (June 6, 2012). "Mastering your label through the eye of the patient." Opal Events Third Annual Pharmaceutical Supply Chain and Packaging Summit. Baltimore, MD.

Bix, L. (May 11, 2012). "Eye tracking as a method to inform label design: Measuring the attentive behaviors of patients." 2015 Regulatory and Scientific Conference. Consumer Healthcare Products Association (CHPA) in conjunction with the Gerontological Society of America. Washington, DC.

Trier, T and **Bix, L.** (March 8, 2012). "Investigating the effect of pouch size on hand repositioning and contamination." HealthPack. Albuquerque, NM.

Koutsimanis, G; Harte, J; Bix, L and Almenar, ER. (December 6, 2011). "A new retail package for fresh sweet cherries." 2011 Great Lakes Fruit, Vegetable and Farm Market EXPO. Grand Rapids, MI.

Bix, L. (August 18, 2011). "New Frontiers in testing packaging accessibility." Invited speaker for the Institute of Packaging Professionals Golden Gate Chapter. San Francisco, CA.

Bix, L. (June 13, 2011). "Patient Centered Design." Invited speaker for the Institute of Packaging Professionals Drug and Pharmaceutical Packaging Committee. East Lansing, MI.

Bix, L. (June 9, 2011). "Trends in Medical Packaging." Invited speaker for the Sterilization Packaging Manufacturers Council (SPMC) Executive Council Meeting. New York, NY.

Koutsimanis, G; Harte, J; Bix, L; Harte, B; Behe, B; Whiting, M; McFerson, J and Almenar, E. (May 18, 2011). "Fresh produce packaging trends: Consumer preferences and behaviors." International Association of Packaging Research Institutes (IAPRI) Annual Symposium. Berlin, Germany.

Bix, L. (May 9, 2011). "New frontiers in testing packaging accessibility." May meeting of the Michigan Society for Clinical Engineering. Ann Arbor, MI.

Furgason, D. (mentor: Bix, L). (April 8, 2011). "Developing a better solution for patient information for prescription drugs." Michigan State University Undergraduate Research and Arts Forum (UURAF). East Lansing, MI.

Bix, L. (May 5, 2010). "Using a universal design methodology to develop accessible child resistant packaging." The Healthcare Compliance Packaging Council's Annual Conference. Valley Forge, PN.

de la Fuente, J and Bix, L. (Best Paper Award) (March 23, 2010). "User-pack interaction: Insights for designing inclusive child-resistant packaging." 5th Cambridge Workshop on Universal Access and Assistive Technology (CWUAAT). Cambridge University Fitzwilliam College. UK.

Kassarjian, O and Bix, L. (March 3, 2010). "Nosocomial infections and microbial ingress research." HealthPack conference. San Antonio, Tx.

Bix, L; Bello, N; Gou, A and Lively, D. (November 12, 2009). "Understanding the physical interface between children and packaging." Consumer culture and the ethical treatment of children. East Lansing, MI.

VandenBergh, B; Rifon, N; Quilliam, E and Bix, L. (Children's Central and Michigan Children's Trust Fund Innovation Award Winner). (November 12, 2009). "Food packaging tactics that target children: The good, the bad and the SpongeBob." Consumer culture and the ethical treatment of children. East Lansing, MI.

Sundar, RP; Bix, L ; Bello, NM. and Viraporn, V. (May 19, 2009). "The Effect of Color Contrast on the Noticeability and Legibility of Prescription Warning Labels (PWLs)." Annual Symposium for Members of the International Association of Packaging Research Institutions (IAPRI). May 17-20, 2009. Greenville, SC.

Kassarjian, O ; Bix, L.; Linz, J. and Burgess, G. (May 18, 2009). "The Effect of Pressure Differential and Secondary Packaging on the Microbial Penetration of a Sterile Medical Device Tray." Annual Symposium for Members of the International Association of Packaging Research Institutions (IAPRI). May 17-20, 2009. Greenville, SC.

Bix, L. (April 30, 2009). "Methods for objectively assessing openability: The HUB approach." Danish Technical Institute's Conference on ease of use. Copenhagen, Denmark.

Bix, L. (October 8, 2008). "The Role of Accessibility in the Sustainability Movement." Tokyo Pack. Tokyo, Japan.

Fair, J.; Bush, TR. and Bix, L. (August 8, 2008). "Biomechanical analysis of opening for glass jars." North American Congress on Biomechanics (NACOB). August 5-9, 2008. Ann Arbor, MI.

Fair, J. ; Bix, L and Bush, TR. (April 14, 2008). "Biomechanical Analysis of Opening Glass Jars: Using Kinematics to Inform Design for Improved Accessibility." The 4th Cambridge University Workshop on Universal Access and Assistive Technology: Designing Inclusive Futures: Achieving a Better Balance of Work, Living and Leisure for Disability and Ageing." Fitzwilliam College, Department of Engineering, University of Cambridge. April 14-16, 2008.

Bix, L; Cardoso, F; de la Fuente, J; Steckler, C and Luebke, L. (September 4, 2007). "Comparative Study of Two Methods to Quantify the Surface Area of Touch Between Consumers and Packaging." The 23rd Symposium of the International Association of Packaging Research Institutes (IAPRI). Windsor, UK. September 3-5, 2007.

Bix, L. and Lockhart, H. (July 9, 2007). "Added Product Complexities Demand Thoughtful Packaging: An Examination of What Packaging can and must do for Medical Products." 34th Annual Meeting and Exposition of the Controlled Release Society. Long Beach, CA. July 6-11, 2007.

Auras, R. and Bix, L. (October 5, 2006). "Broader implications of using new technologies in packaging classes: How inclusive is your classroom"? The 15th World Conference on Packaging of the International Association of Packaging Research Institutes (IAPRI). Tokyo, Japan. October 2-5, 2006.

de la Fuente, J. and Bix, L (October 4, 2006). "A universal design process for developing child resistant packaging." The 15th World Conference on Packaging of the International Association of Packaging Research Institutes (IAPRI). Tokyo, Japan. October 2-5, 2006.

Kou, E. and Bix, L. (October 5, 2006). "Can people with arthritis access their medications"? The 15th World Conference on Packaging of the International Association of Packaging Research Institutes (IAPRI). Tokyo, Japan. October 2-5, 2006.

Bix, L. and de la Fuente, J. (September, 2006). "User-centered design: Wave of the future." PLACE 2006 Conference of the Technical Association for the worldwide Paper Pulp and Converting Industry (TAPPI). September 17-21, 2006.

de la Fuente, J. and Bix, L. (May, 2005). "Universal design methodology for the development of child resistant drug packages." International Association of Packaging Research Institutes (IAPRI) Annual Conference. Cetea, Brazil. May 22-25, 2005.

de la Fuente, J. and Bix, L. (April, 2005). "Applying universal design to child resistant packaging." Include 2005: International conference on Inclusive Design. Royal College of Art. London, UK. April 5-8, 2005.

Rifon, N; Bix, L; Mastin, T; Choi, SM and Van Hurley, V. (August, 2004). "Cigarette warnings and phantom smokers: Does belief in warning relate to smoking status"? Enhancing Knowledge Development in Marketing: 2004 American Marketing Association Summer Educators' Conference. Boston, MA. August 6-9, 2004.

Bix, L; Clarke, R; Sansgiry, S and Cardoso, F. (July, 2004). "Do Tagging Practices of OTC Drugs Present a Liability"? TRAX Pharmaceutical Supply Chain Summit. Washington, DC. July 20-22, 2004.

Bix, L. and Alvarado, G. (October, 2003) "Applying eye tracking to packages: Do people read warnings"? *Proceedings of the New Technologies for Innovative Packaging Conference 2003*. Leeds, UK. October 15-16, 2003.

Bix, Laura; Lockhart, Hugh; Selke, Susan and Cardoso Fernando. (June, 2002). "Toward a performance standard for label legibility: The Lockhart Legibility Instrument." *WorldPak Proceedings*. WorldPak. Michigan State University, East Lansing, MI.

Sansgiry, Sujit; Shringapure, Gauri and Bix, Laura. (June, 2002). "Over-the-counter medication labels: Compliance with FDA labeling guidelines." *WorldPak Proceedings*. WorldPak. Michigan State University, East Lansing, MI.

Bix, Laura; Goff, James and Twede, Diana. (May 14, 1999). "The creation of the School of Packaging at Michigan State University." *Proceedings of the 9th Conference on Historical Analysis and Research in Packaging*. Michigan State University, East Lansing, MI.

Poster presentations

Bold denotes **Graduate Advisee**, Italicized text denotes *Undergraduate Advisee*, Underlined text denotes Contact Author

Sundar, RP; Bix, L and Bello, N. (March 9, 2010). "Quantifying the Attentive Behaviors of Older Adults." College of Agriculture and Natural Resources (CANR) ANR Poster Session. East Lansing, MI. March 5-13, 2010.

Prashant RP; Bix, L and Viraporn, Voramanus. (June 10, 2008). "The Effect of Color Combination of Text and Background on the Noticeability and Legibility of Prescription Drug Warning Labels." 16th Annual World Conference on Packaging. International Association of Packaging Research Institutes (IAPRI).

Whaling, A; Thornsbery, S; Bix, L; Gonzalez, MP; Rifon, N and Twede, D. (December 4-6, 2007). "The Effect of Packaging Attributes on Consumer Perception of a Product." Great Lakes Fruit, Vegetable and Farm Market EXPO. Grand Rapids, MI.

Bix, L; de la Fuente, J; Cardoso, F; **Fair, J; Whaling, A; Steckler, C.** (September 3-5, 2007). "Sight, Sound and Child Resistance." The 23rd Symposium of the International Association of Packaging Research Institutes (IAPRI). Windsor, UK.

Bix, L; Clarke, R; Sansgiry, S. (May, 2003). "Examining the amount of information covered by anti-theft tags on OTC analgesics: What drug manufacturers should know." *Proceeding of the 21st IAPRI Symposium 2003.* Valencia, Spain. May 18-21, 2003.

Non-peer reviewed publications

Bold denotes **Graduate Advisee**, Italicized text denotes *Undergraduate Advisee*,

Bix, L. (July, 2013). "Rethink Drug Packaging." *Healthcare Packaging*. Available at: <http://www.healthcarepackaging.com/applications/healthcare/rethink-drug-packaging>.

Bix, L. and **de la Fuente, J.** (April, 2013). "The Inclusive Design Imperative." *Packaging World*. 20(4).28.

de la Fuente, J and Bix, L. (May, 2012). "Perceptions and attitudes of people with disabilities and older adults about child-resistant drug packaging." *Journal of Patient Compliance*. 2(2).54-59. http://issuu.com/mark123/docs/jpc_volume_2_issue_2_-_may_2012

de la Fuente, J and Bix, L. (April, 2011). "A tool for designing and evaluating packaging for healthcare products." *Journal of Patient Compliance*. *Journal of Patient Compliance*.1(1).48-52. <http://issuu.com/mark123/docs/jpc-volume3-issue1>

Bix, L; **de la Fuente, J.** and Yoxall, A. (October, 2010). "Time to revise CPSC protocol testing." *Tablets and Capsules*. 8(7).32-35.

Blocher, JL; Darby, D.; Cooksey, K; Bix, L and Gerard, P. (2010). "Humidity and microbial penetration in porous materials." *Medical Device and Diagnostics Industry*. 32(7).

de la Fuente, J. and Bix, L. (May, 2008). "Inclusionary child resistant packaging: Impossible paradox or attainable goal"? *Tablets and Capsules*. Vol. 6(4).Pp. 72.

de la Fuente, J.; Bix, L. and Castillo Cabezas, J. (2nd Semester, 2007). "De consumidores a usuarios." iF Magazine. 4. Pp. 70-75.

Bix, L; Clarke, R; Lockhart, H; Twede, D and Spink, J. (September, 2007) "The case for global Standards: A whitepaper for Global Standards 1." Available at: http://www.gs1.org/docs/healthcare/Case_Global_Data_Standards_Healthcare.pdf

Severin, J. and Bix, L. (September, 2007). "Examining the Effect of Pressure Differential on the Penetration Threshold of Medical Device Packages." *Medical Device Developments*. Volume 2. Pp. 46-48. Touch Briefings. <http://www.medicaldevice-network.com/features/feature1335/>

Bix, L. and **Severin, J.** (October, 2006). "Examining package integrity for sterile medical devices." *Business Briefing: Global HealthCare- Medical Device and Manufacturing Technology-2006*.

de la Fuente, J ; Bix, L and **Whaling, A.** (May 2006). "Universal design, part II: A toolbox for testing human utility in packaging." *Shelf Impact!*

de la Fuente, J. and Bix, L. (January/February, 2006). "Build sales through universal design." *Shelf Impact!*

de la Fuente, J. and Bix, L. (January, 2006). "Build sales through universal design." *Packaging World*.

Bix, L.; **de la Fuente, J.** and **Kou, E.** (November, 2005). "The Aging Trend and Its Impact on Packaging." *Business Update Publications*. Pp. 22-23.

Bix, L and **de la Fuente, J.** (September, 2005). "Priorities in Packaging." *Medical Device Developments*.

Bix, L; **de la Fuente, J.** and **Severin, J.** (May, 2005). "Evolving Approaches to Medical Care Require Changes to the Design of Products and their Packaging." *Business Briefing: Global HealthCare- Medical Device Manufacturing and Technology*. Pp. 88-89.

de la Fuente, J.; Bix, L. and Lockhart, H. (July/August, 2005). " Democratizando el uso de los envases." *Énfasis Packaging Magazine*. Vol XI(4). Pp. 60-68.

Bix, L; **Iwaszkiewicz, R.** and **Severin, J.** (2004). "Update from the Institute of Packaging Professional's Sterile Barrier Integrity Task Group." *Business Briefing: Global HealthCare- Advanced Medical Technology 2004*." Pp.46-48.

Bix, L; **de la Fuente, J.** and Lockhart, H. (April, 2004) "Universal design: Packaging with universal appeal." *Packaging World*.

Bix, L. (December, 2001). Toward a performance standard for legibility: The Lockhart Legibility Instrument. Ph.D. Dissertation. Michigan State University, School of Packaging. East Lansing, MI.

Bix, L. and McKeon, J. (February, 2000). An industry takes shape: The FPA story 1950-2000. The Flexible Packaging Association. Washington, DC.

Bix, L. (December, 1998). The effect of subject age on legibility. Master's Thesis. Michigan State University, School of Packaging. East Lansing, MI.

Bix, L. *Major packages more than boxes*. The State News. March 13, 1992.

Grant Proposals

Bix is PI or Co-PI unless otherwise noted

Bix, L; McDavid, P; Silk, K; Smith, MK and Speck, R. (December, 2017). "Using simulation to build safety into the system: Engineering products that consider prehospital contexts." Investigator Initiated Grants. Blue Cross Blue Shield of Michigan Foundation. Requested \$55,458. (Not Funded).

Becker, MW; Bix, L; Sarzynski, E; Kashy, D; Martin, B and Breslow, R. (November, 2017). "Optimizing OTC labels for older adults. Empirical evaluation of labels designed to provide older users the information they need to minimize adverse drug events." National Institutes of Health (NIH). Agency for Healthcare Quality Research (AHRQ). Requested \$1,706,930. (Resubmission- Under Review).

Bix, L; Becker, M; Sarzynski, E; Kashy, D; Martin, B and Breslow, R. (June, 2017) "A patient-centered approach to labeling for over-the-counter medications: Using data to drive design decisions for the benefit of

older adults." Pilot Translational and Clinical Studies Program Grants Administered by the Clinical and Translational Sciences Institute (CTSI) at Michigan State University. Requested \$9,558.19. **Funded \$9,558.19.**

Bix, L; Becker, M; Kashy, D; Sarzynski, E. (May, 2017). "A patient-centered approach to labeling for over-the-counter medications: Using data to drive design decisions for the benefit of older adults." Pearl Aldrich Endowment in Aging Related Research and Education. Requested \$19,929.68. **Funded \$8,059.47**

Becker, M; Bix, L; Kashy, D; Sarzynski, E. (October, 2016). "Optimizing OTC labels for older adults: Empirical evaluation of labels designed to provide older users the information they need to minimize adverse drug events." National Institutes of Health (NIH). R01. Requested \$1,706,342. Impact Score 52; Percentile 47.

Becker, M; Bix, L; Kashy, D and Sarzynski, E. (March, 2016). "The effect of information content and formatting on processing among older adults assessing OTC appropriateness during self-selection." Burroughs Wellcome Fund. \$497,028 Requested/\$233,604 allotted for Bix's work.

Martell, D; Silk, K; Becker, M and Bix, L. (May, 2016). "Development of an objective evaluation of a front of pack label system for alcoholic beverages." Annheuser Busch Foundation. \$183,575 Requested/\$62,416 allotted for Bix's work.

Bush, T and Bix, L. (September, 2015). "Reducing levels of medical device contamination through packaging redesign and opening technique." Blue Cross Blue Shield of Michigan Foundation. Investigator Initiated Research Program. \$71,274 Requested/\$35,637 allocated for Bix's work. **Funded \$71,274.**

Bix, L and Becker, MW. (July, 2014). "Quantifying the attentive behaviors of older adults during purchase scenarios: Decision making and over the counter drugs." Consumer Healthcare Products Association (CHPA) Education Foundation. Invited to compete. \$29,696 Requested/\$22,272 allocated for Bix's work. **Funded \$29,696.**

Bush, T; Bix, L and Burgess, G. (February, 2014). "Mechanical and human protocols for assessment of tamper evidence." Coca-Cola Corporation. \$309,857 Requested/\$102,253 allocated for Bix's work.

Bix, L and Becker MW. (October, 2013). "An assessment of the role of medical device packaging in adverse events." Korea Institute of Industrial Technology (Korean Government). \$28,394 Requested/\$28,395 allocated for Bix's work.

Bix, L and Becker, MW. (June, 2013). "Assessing the current strategy for labeling critical information on medical device packaging." Blue Cross Blue Shield of Michigan Foundation Investigator Initiated Program Research Program. \$18,842 Requested/\$9,421 allocated for Bix's work. **Funded \$18,842.**

Silk, K; Bix, L; Weatherspoon, L. (October, 2012). "Testing NuVal: A nutrition decision making aid for low health literate audiences." National Institutes of Health (NIH). \$397,885 Requested/\$139,260 allocated for Bix's work.

Bix, L; Bush, T and Burgess, G. (September, 2012). "An investigation of sources of contamination during simulated aseptic presentation of peel packs." Blue Cross Blue Shield Foundation of Michigan, Investigator Initiated Program. \$54,924 Requested/\$18,674 allocated for Bix's work.

Danovitch, J; Becker, MW and Bix, L. (July, 2012). "Children's Comprehension and use of novel front of pack labeling systems." Robert Wood Johnson Foundation: Concept paper invited for full proposal submission; Round 7 Call of the Healthy Eating Research Program. \$126,084 Requested/\$27,738 allocated for Bix's work.

Bix, L. (October, 2011). "The effect of interactive warnings on attentive behaviors when viewing medications." Institute of Korea Packaging Systems. \$28,091 Requested/\$28,091 allocated for Bix's work. **Funded \$28,091.**

Lapinski-Lafaive, M and Bix, L. (August, 2011). "Risk perception and attentional prioritization of warning labels." National Science Foundation (NSF) PD 98-1321 within the Decision, Risk and Management Sciences Section. \$399,324 Requested/\$199,662 allocated for Bix's work.

Becker, Mark; Danovitch, Judith; Bix, Laura and Weatherspoon, Lorraine. (March, 2011). "The Design and Evaluation of Front of Pack Labels that are Effective for Children." Robert Wood Johnson Foundation. \$167,101 Requested/\$38,433 allocated for Bix's work.

Becker, Mark; Bix, Laura; Bello, Nora and Weatherspoon, Lorraine. (November, 2010). "Evaluating Human Processing of Front of Pack Nutritional Labels." National Institutes of Health (NIH) R-21: PA-08-240 Impact of Health Communication Strategies on Dietary Behaviors. \$411,789 Requested/\$149,794 allocated for Bix's work. **Funded \$365,351.**

Rifon, N; Quilliam, E; Bix, L; Weatherspoon, L and Danovitch, J. (October, 2010). "The impact of food marketing on children's health status: The role of packaging." National Institutes of Health (NIH) R-01: PA-08-239 Impact of Health Communication Strategies on Dietary Behaviors. \$1,131,227 Requested/\$271,494 allocated for Bix's work.

Danovitch, Judith; Bix, Laura; Becker, Mark; Bello, Nora and Weatherspoon, Lorraine. (June 2010). "Information Processing Model for Front of Pack Labels Viewed by Children." USDA NIFA AFRI Program 003037. \$717,135 Requested.

Bix, Laura. (May, 2010). "Aging Successfully: A Study to review current Kellogg's RTEC Packaging and Competitive Packaging." Kellogg's Company. \$61,640 Requested/\$61,640 allocated for Bix's work. **\$15,000 Funded.**

Lapinski-Lafaive, Maria and Bix, Laura. (January, 2010). "Attentional prioritization and risk information: Eye tracking experiments with consumable product risk labels." National Science Foundation. Decision and Risk Management Science Program. \$399,532 requested/\$227,733 allocated for Bix's work. Not Funded.

Becker, Mark; Bix, Laura and Weatherspoon, Lorraine. (February, 2010). "Evaluating Human Processing of Front of Pack Nutritional Labels." National Institutes of Health. Impact of Health Communication Strategies on Dietary Behaviors (R-21). \$387,067 Requested/\$162,568 allocated for Bix's work. Not Funded.

Alocija, E. and Bix, Laura. (November, 2009). "Project GEM Team: Phase II." Gerber/Nestle. \$550,000 requested/\$250,000 allocated for Bix's work. Not Funded.

Weatherspoon, Lorraine; Bix, Laura; Harte, Janice; Claycombe, Kate; Weatherspoon, Dave and Adelaja, Adesoji. (October, 2009). National Institutes of Health. "Addressing Urban Youth Obesity Risk through Healthy Snack Foods." Geographical and Contextual Influences on Energy Balance- Related Health Behaviors- R21. \$396,565 Requested/\$75,347 allocated for Bix's work. Not Funded.

Habron, Geoffrey; Harris, Craig; Richardson, Robert; Stone, John; Bix, Laura and Howard, Phillip (August, 2009). "Fostering Sustainable Fisheries through Seafood Labeling." National Oceanic and Atmospheric Administration. \$249, 504 requested/\$17465 allocated for Bix's work. Not Funded.

Bush, Tamara and Bix, Laura. (August, 2009). "Pen Injector Literature Assessment and Comparative Analysis." Abbott Laboratories. \$123,623 Requested/\$61,879 allocated for Bix's work. **\$123,623 Funded.**

Rifon, Nora; Quilliam, Elizabeth; Clarke, Judith; Vandenbergh, Bruce; Bix, Laura and Weatherspoon, Lorraine. (June, 2009). "Healthy Eating Research: Building Evidence to Prevent Childhood Obesity." Invited to submit full proposal based on pre-proposal submission. \$142,400 Requested /\$32,752 allocated for Bix's work. Not Funded.

Bix, Laura and Becker, Mark. (May, 2009). "Building a Serving Facts Label for Alcohol: An Information Processing Model." National Institutes of Health. \$611,776 Requested. \$305,888 allocated for Bix's work. Not Funded.

Alocilja, Vangie and Bix, Laura. (December, 2008). "Project GEM Team." Gerber/Nestle. \$163,319 requested/\$81,660 allocated for Bix's work. **Funded \$163,319.**

Bush, Tamara and Bix, Laura. (September, 2008). "GOALI: User Centered Design: A New Methodology Employing Biomechanics to Quantify Functional Ability." National Science Foundation. Grant Opportunities for Academic Liaison with Industry. \$477,129 Requested/\$238,564 allocated for Bix's work. Not Funded.

Rubino, Maria and Bix, Laura. (June 4, 2008). "Proposal for the Integrated Products Team (IPT) of the United States Marine Corps (USMC). \$99,978 requested/\$59,987 allocated for Bix's work. **Funded \$99,978.**

Bix, Laura. (May, 2008). "Teach the Teacher." Jane E. Wonders Fund. \$16,500 requested/\$ allocated for Bix's work. Not Funded.

Bix, Laura, Prashant Sundar, Raghav and Viraporn, Voramanus. (November, 2007). "The Effect of Color Combination of Text and Background on the Noticeability and Legibility of Prescription Drug Warning Labels." Center for Food and Pharmaceutical Packaging Research (CFPPR). \$7,500 requested/\$7,500 allocated for Bix's work. **Funded-\$9,000.**

Bix, Laura and Kumar, Bhupinder. (November, 2007). "Analysis of Grip Styles." Center for Food and Pharmaceutical Packaging Research (CFPPR). \$7,050 requested/\$7050 allocated for Bix's work. **Funded-\$9,000.**

Bix, Laura and de la Fuente, Javier. (December, 2006). "Tying Ethnographic research to a study of ergonomics and packaging for Kraft Foods." Kraft Foods. \$61,000 requested/ \$61,000 allocated for Bix's work. **Funded- \$30,000.**

Bix, Laura and de la Fuente, Javier. (December, 2006). "A study of ergonomics and packaging for Kraft Foods." Kraft Foods. \$54,000 requested/\$54,000 allocated for Bix's work. **Funded- \$54,000.**

Bix, Laura and Fair, Joseph. (November 8, 2006). "Biomechanical Analysis of Opening for Six Different Glass Jars." Center for Food and Pharmaceutical Packaging Research (CFPPR). \$7,000 requested/\$7,000 allocated for Bix's work. **Funded- \$6,000.**

Bix, Laura and de la Fuente, Javier. (November 8, 2006). "Understanding the Interface between Children and Packaging." Center for Food and Pharmaceutical Packaging Research (CFPPR). \$10,600 requested/\$10,600 allocated for Bix's work. **Funded- \$9,000.**

Auras, Rafael and Bix, Laura. (June, 2006). "Broader Implications of Using New Technologies in Packaging Classes: How inclusive is your classroom"? McGraw Hill/eInstruction Instructional Technology Grant. 32 student response systems requested. **Funded- 32 SRs provided.**

Bush, Tamara and Bix, Laura. (April 28, 2006). "Hand forces associated with packaging." Creating Inclusive Excellence at Michigan State Fund. \$7,000 requested/\$3,500 allocated for Bix's work. Not Funded.

Auras, Rafael and Bix, Laura. (April 28, 2006). "Clickers and people with disabilities." Creating Inclusive Excellence at Michigan State Fund. \$5,000 requested/\$2,500 allocated for Bix's work. Not Funded.

Lockhart, Hugh; Bix, Laura; Twede, Diana and Clarke, Robb. (April 25, 2006). "The business case for global data standards in the healthcare supply chain." Johnson & Johnson Corporation. \$118,050 requested/ \$9,421 allocated for Bix's work. **Funded- \$118,050.**

Clarke, Robb; Bix, Laura and Risch, Sara. (March 24, 2006). "RFID tagging for first responders and victims of mass incidents." Michigan Economic Development Corporation. \$2,458,224 requested./172,076 allocated for Bix's work Not Funded.

Selke, Susan and Bix, Laura. (January 20, 2006). "Comparison of life cycle impacts of JAWS surface cleaners and conventional surface cleaner bottles." Canberra Corporation. \$5,000 requested/\$1,250 allocated for Bix's work. **Funded- \$5,000.**

Bix, Laura. (December 13, 2005). "Successful Aging." Kellogg's Corporation. \$7,500 requested/\$7,500 allocated for Bix's work. **Funded- \$7,500.**

Bix, Laura. (December 8, 2005). "A Simple, Risk-Based Approach to Sample Size Selection for Sterile Medical Packages." Cardinal Health. \$5,000 requested/. **Funded- \$5,000**

Bix, Laura. (October 27, 2005). "Child resistant drug packaging and arthritis: Can older adults with arthritis access their medication"? Center for Food and Pharmaceutical Packaging Research (CFPPR). \$9,000 requested/\$9,000 allocated for Bix's work. **Funded-\$7,000.**

Bix, Laura. (September 7, 2005). "Child resistant drug packaging and arthritis: Can older adults with arthritis access their medication"? Michigan State University Intramural Research Grants Program (IRGP). \$40,017 requested/\$40,017 allocated for Bix's work. **Funded \$40,017.**

Bix, Laura and Gilliland, Dennis. (March 9, 2005). "Applying Universal Design Concepts to Packaging." Michigan Economic Development Corporation (MEDC). \$103,756 requested/\$88,193 allocated for Bix's work. Final Proposal. Not Funded.

Bix, Laura and Gilliland, Dennis. (February 1, 2005). "The Use of a Universal Design Methodology for Developing Child Resistant Drug Packages." National Institutes of Health PA-03-107 Exploratory/Developmental Research Grant (R21). \$275,000 requested/\$233,750 allocated for Bix's work. Not funded.

Bix, Laura; de la Fuente, Javier and Whaling, Audrey. (October, 2004) "A comparative study of two methods to quantify the surface area of contact between consumers and packages." Center for Food and Pharmaceutical Packaging Research (CFPPR). \$6,300 requested/\$6,300 allocated for Bix's work. **Funded- \$7,500.**

Bix, Laura and de la Fuente, Javier. (October, 2004). "Improving the utility of child resistant packaging." Center for Food and Pharmaceutical Packaging Research (CFPPR). \$6,500 requested/\$6,500 allocated for Bix's work. **Funded- \$7,500.**

Bix, Laura. (September 13, 2004). "Creating a Better Child Resistant Package." Intramural research grants program (IRGP). New Faculty Initiation Grant. Not Funded

Bix, Laura. (March 31, 2004) "Applying Universal Design to Packaging." International Furnishings and Design Association (IFDA). \$2,500 requested/ \$2,500 allocated for Bix's work. Not funded.

Bix, Laura and Lockhart, Hugh. (October, 2003). "Sight, Sound and Child Resistance." Center for Food and Pharmaceutical Packaging Research (CFPPR). \$5,000 Requested/\$5,000 allocated for Bix's work. **Funded- \$5,000.**

Bix, Laura. (August, 2003). "Comparing the Surface Area of Hand Contact on Flat vs. Contoured Cans: Is there a Difference"? Oblon, Spivak, McClelland, Maier & Neustadt). \$21,871 requested/\$21,871 allocated for Bix's work. **Funded \$21, 871.**

Rifon, Nora; LaRose, Robert and Bix, Laura. (September, 2003). "Network security begins at home: Understanding consumer information processing to assure online integrity". Intramural Research Grants Program (IRGP). Not funded.

Bix, Laura and Lockhart Hugh. (October, 2002). "Use of the Pac Guard 500 in the nondestructive detection of package defects." Center for Food and Pharmaceutical Packaging Research (CFPPR). \$5,000 Requested/\$5,000 allocated for Bix's work. **Funded- \$5,000.**

Bix, Laura and Alvarado Greg. (October, 2002). "Examining the effectiveness of required warnings on OTC labels." Center for Food and Pharmaceutical Packaging Research (CFPPR). \$5,000 Requested/ \$5,000 allocated for Bix's work .**Funded- \$5,000.**

Bix, Laura. (September, 2002). "Quantifying text legibility." Intramural research grants program (IRGP). New Faculty Initiation Grant. Not funded.