NLM Informatics Training Conference 2014
Scaife Hall/Peterson Event Center, University of Pittsburgh, Pittsburgh, PA
June 17-18, 2014

	Tuesday, June 17, 2014	
7:00 AM – 8:00 AM	Registration/Breakfast	Peterson Lobby
8:00 AM - 8:30 AM	Welcome remarks: Biomedical Informatics Training Program NLM Director Remarks: Dr. Donald A.B. Lindberg Introduction of Training Directors & Trainees: Dr. Valerie Florance	Scaife LR6
8:40 AM – 9:40 AM	 Plenary Session #1, five 10 minute talks + 2 min discussion each; Moderator: Lucilia Ohno-Machado, UC San Diego Effects of Data Sources, Cohort Selection and Outcome Definition on a Predictive Model of Risk of Thirty-Day Hospital Readmissions. Colin Walsh, Columbia University The EHR and Collaboration between Providers: Highlights from Three Studies. Dian Chase, OHSU The Effect of CDS on Documented Guideline Adherence for CT in Mild Traumatic Brain Injury. Anurag Gupta, Harvard University Older Adults' Attitudes toward Fall Detection Devices. Shomir Chaudhuri, University of Washington Detecting Patient Falls from the EHR using NLP and Text Mining. Jonathan Bates, Veteran's Administration 	Scaife LR6
9:40 AM – 10:30 AM	Poster & Coffee Break Day 1 Group @ 15 posters Health Care/ Public Health: 1. Identifying EMR Appropriation Strategies for Better Patient-Centered Care. Jing Zhang, UCSD 2. Complementary eHealth: Veterans, MyHealtheVet and Clinical Video Teleconferencing. Erica Abel, Veteran's Administration 3. Interpretation and Organization Rules Mined from Utilization of EHR Systems. You Chen, Vanderbilt 4. A Task-based Evaluation of HARVEST, a Clinical Data Aggregation and Summarization Tool. Jamie Hirsch, Columbia University 5. EHR Visualization to Improve Decision Making. Shira Fischer, Harvard 6. Design and Usability Testing of a Smartphone App for Informal Caregivers. Steven Williamson, OHSU 7. Generating Personalized, Interactive Repeated Reading Interventions. Arthur Ward, University of Pittsburgh Clinical Research/Translational: 8. Knowledge-Based Combination Therapy Discovery in Malignant Melanoma. Kelly Regan, Ohio State University 9. Predictors of Mortality in Adult Sepsis Patients in the ICU using MIMIC-II. Raymond Sarmiento, National Library of Medicine 10. A Whole Genome Sequencing Study of Breast Cancer. Wei Wang, Stanford 11. Telemedicine to Assist Nurse Practitioners with Managing Acute Change in Condition and Palliative Care Assessments of Nursing Home Residents: a Feasibility Study. Reza Sadeghian, University of	Peterson Lobby

	Translational/Bioinformatics:	
	12. Challenges in Secondary Analysis of High Throughput Screening Data.	
	Aurora Blucher, OHSU	
	13. A Framework for Assessing the Consistency of Drug Classes across	
	Sources. Rainer Winnenburg, National Library of Medicine	
	14. Validation of Near-atomic Resolution Molecules to Identify Structures	
	for Drug Design. Corey Hryc, Rice University/Baylor College of	
	Medicine	
	15. Image Classification and Retrieval Using ConvNets and Linked Data.	
	Mate Nagy, Yale University	
	Parallel Focus Sessions A, four 6 minute talks plus 30 minutes discussion	
	Focus Session A1; Moderator: George Demiris, University of Washington	
	1. Machine Learning Analysis of Institutional Review Board Processing	
	Times. Kimberly Shoenbill, University of Wisconsin	
	2. Automated Processing of Consumer Health Questions. Kirk Roberts,	
	National Library of Medicine	Scaife LR6
	3. Effect of an Electronic Handoff Documentation Tool on Clinical Verbal	Scalle LNO
	Handoff Interactivity. Silis Jiang, Columbia University	
	4. "I'm Not Like My Friends": How Children with a Chronic Illness Use	
	Technology to Maintain Normalcy. Leslie Liu, University of	
10:30 AM - 11:30 AM	Washington	
	Focus Session A2; Moderator: Mark Craven, University of Wisconsin	
	1. Improved Novel MicroRNA Prediction with Calibration. Eric Levy, UC	
	San Diego	
	2. ASSIGN: Adaptive Signature Selection/Identification in GeNome-Wide	
	Profiling. Mumtahena Rahman, University of Utah	o ::
	3. Integration of Public Data with Single Cell Profiling to Identify Cancer	Scaife LR5
	Subpopulations. Michael Januszyk, Stanford University	
	4. The 4D Hyperspherical Diffusion Wavelet: A New Method for Detection	
	of Localized Anatomical Variation. Ameer Hosseinbor, University of	
	Wisconsin	
11:45 AM – 1:15 PM	Executive Session of Training Directors (Session Chair: Dr. Donald A.B.	BST S123
	Lindberg; one program faculty member per program)	20. 0110
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	NLM Program Webinar: Introduction to Career Development Awards and	
	NI/ESI R01 Grants in Biomedical Informatics (pick up lunch before attending	Scaife 1217
12:00 PM – 1:00 PM	webinar at Peterson Club Level)	
	Birds of a Feather Lunch for students, faculty, and staff	Peterson
	. "	Club Level

1:30 PM – 2:30 PM	Open Mic Session #1 – Thirteen 4.5 minute talks; Moderator: Bill Hersh, OHSU	
	Semantic Approaches to Integrate Diverse Datasets. William Brown,	
	Columbia University	
	2. Best of Both Worlds: Machine Learning of Physiologic Information for	
	Clinical Practice. Lauren Thorngate, University of Washington	
	3. Development of a Natural Language Processing Tool to Extract	
	Radiation Treatment Sites from an Electronic Medical Record. Gary	
Clinical/Translational	Walker, Rice University /UT MD Anderson	
,	4. The Proteomics of Acute Myeloid Leukemia: Linking Protein Signatures	
	to Patient Prognosis. David Noren, Rice University	Scaife LR6
	5. A Machine-Learning Approach for Drug-Drug Interaction Extraction	
	from FDA Structured Product Labels. Johann Stan, LHC, National	
	Library of Medicine	
	6. Deep Learning Methods for Identifying Transcription Factor Binding	
	Sites. Joyeeta Dutta-Moscato, University of Pittsburgh	
	7. Providing Hospital Patients with Access to their Medical Records.	
	Jennifer Prey, Columbia University	
	8. Thermia: Simplifying Childhood Fevers with Mobile Clinical Decision	
	Support. Jared Hawkins, Harvard University	
	9. Predictive Analytics as a Clinical Decision Support Tool in a Healthcare	
	Setting. Yanhua Lin, University of Utah	
	10. Finding Adverse Drug Events in the EMR. Aubrey Barnard, University	
Health Care/Public	of Wisconsin	
Health/Dental	11. Applying a Technology-agnostic Approach to Workflow Studies in	
	Primary Care: Paper, Verbal, and Electronic Information Handling.	
	James McCormack, OHSU	
	12. Locating Relevant Patient Information in Electronic Health Record Data	
	Using Representations of Clinical Concepts and Database Structures.	
	Xuequn Pan, National Library of Medicine	
	13. Texting for Sexual Health to American Indian/Alaska Native Teens &	
	Young Adults. Patricia Yao, OHSU	
	Poster and Coffee Break Day 1 Group, 15 posters	
	Health Care/ Public Health:	
	Identifying EMR Appropriation Strategies for Better Patient-Centered Core Fine Thorse LICED	
	Care. Jing Zhang, UCSD	
	 Complementary eHealth: Veterans, MyHealtheVet and Clinical Video Teleconferencing. Erica Abel, Veteran's Administration 	
	Interpretation and Organization Rules Mined from Utilization of EHR	
2.20 DN4 2.20 DN4	Systems. You Chen, Vanderbilt	Peterson
2:30 PM – 3:30 PM	4. A Task-based Evaluation of HARVEST, a Clinical Data Aggregation and	Lobby
	Summarization Tool. Jamie Hirsch, Columbia University	
	5. EHR Visualization to Improve Decision Making. Shira Fischer, Harvard	
	6. Design and Usability Testing of a Smartphone App for Informal	
	Caregivers. Steven Williamson, OHSU	
	7. Generating Personalized, Interactive Repeated Reading Interventions.	
	Arthur Ward, University of Pittsburgh	

	Clinical Research/Translational:	
	8. Knowledge-Based Combination Therapy Discovery in Malignant	
	Melanoma. Kelly Regan, Ohio State University	
	9. Predictors of Mortality in Adult Sepsis Patients in the ICU using MIMIC-	
	II. Raymond Sarmiento, National Library of Medicine	
	10. A Whole Genome Sequencing Study of Breast Cancer. Wei Wang ,	
	Stanford	
	11. Telemedicine to Assist Nurse Practitioners with Managing Acute	
	Change in Condition and Palliative Care Assessments of Nursing Home	
	Residents: a Feasibility Study. Reza Sadeghian, University of	
	Pittsburgh	
	Translational Bioinformatics:	
	 Data Challenges in Secondary Analysis of High Throughput Screening. Aurora Blucher, OHSU 	
	13. A Framework for Assessing the Consistency of Drug Classes across	
	Sources. Rainer Winnenburg, National Library of Medicine	
	14. Validation of Near-atomic Resolution Molecules to Identify Structures	
	for Drug Design. Corey Hryc, Rice University/Baylor College of	
	Medicine	
	15. Image Classification and Retrieval Using ConvNets and Linked Data.	
	Mate Nagy, Yale University	
	Parallel Focus Sessions B: three or four 6 minute talks plus 30 minutes discussion Focus Session B1; Moderator: Lydia Kavraki, Rice University	
	1. Identification of Cancer Driver Mutations in Regulatory Regions. Collin	
	Melton, Stanford University	
	Language Generation Rules for Improving Gene Ontology Synonym	Scaife LR6
	Coverage. Christopher Funk, University of Colorado	
	3. ModelView: an HTML5 Graphical Tool for Exploring Model Structures.	
	Robert McDougal, Yale University	
3:30 PM - 4:30 PM	Focus Session B2; Moderator: Jim Cimino, NIH Clinical Center	
	Requiring Clinical Justification to Override Repeat Imaging Decision	
	Support: Impact on CT Use. Stacy O'Connor, Harvard University	
	2. CDS Availability at US Liver Transplant Programs: Barriers &	
	Opportunities. Jason Jacobs, University of Utah	
	Charge Transparency: Validating Electronic State and Federal	Scaife LR5
	Depositories. Bobbie Kite, Ohio State University	
	4. Development and Evaluation of a Record Linkage Protocol for Utah's	
	Controlled Substance Database. April Mohanty, Veteran's	
	Administration	
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4:30 PM - 5:15 PM	Shuttle to Hotel	
5:15 PM - 9:30 PM	Shuttle from Hotel to Phipps	
6:00 PM – 9:30 PM	Dinner/Reception	Phipps
		Conservatory

Wednesday, June 18, 2014		
7:00 AM – 8:15 AM	Shuttle from Hotel, Breakfast	Peterson
		Lobby
8:30 AM – 10:00 AM	University of Pittsburgh – University Showcase Choose three 30-minute presentations from 18 different topics (see schedule on page 64 of conference booklet)	Peterson Lawn, Club, and Concourse Levels
	Poster and Coffee Break – Day 2 Group, 14 posters	
10:00 AM - 11:00 AM	 Poster and Coffee Break – Day 2 Group, 14 posters Health Care/Public Health: Steroid-induced Diabetes Mellitus in Patients with Inflammatory Bowel Disease. Sivan Kinberg, Columbia University Understanding Complex Clinical Decision Tasks for Better HIT System Design. Roosan Islam, University of Utah Exploring Neurological Symptom Assessments in Malignant Brain Cancer. Rebecca Hazen, University of Washington Using EHR Data to Predict Risk of VTE and Asthma. Alexander Cobian, University of Wisconsin Adequacy of Existing Standards for Representation of Late-Life Preferences. Justin Clutter, University of Utah ICD-9 Codes and the Identification of Nontuberculous Mycobacteria Infections. Scott Nelson, Veteran's Administration Clinical Research/Translational: Treatment Relation Extraction from Clinical Text. Cosmin Bejan, Vanderbilt Automatic Information Extraction of Microbiology Culture Reports Using NLP. Wen-wai Yim, University of Washington Systematic Review on Informed Consent for Neurological or Neurosurgical Emergency Research. Stephanie Feupe, UC San Diego Identifying Diagnosis of Alcohol Dependence Using Supervised Learning on EEG. Joel Brooks, Harvard University Translational/Bioinformatics: Inferring Regulatory Regions and Transcription Factor Binding with ATAC-seq. David Moskowitz, Stanford University Quantitative Trait Loci controlling Recombination Rate in Mus musculus. Richard Wang, University of Wisconsin Novel Peptide-Displaying Phage Reagents for Detection of Noroviruses. Amy Hurwitz, Rice University/Baylor College of Medicine pRESTO: a Toolkit for High-Throughput Ig Repertoire Sequencing P	Peterson Lobby

11:00AM - 12:00PM	 Plenary Session #2, five 10 minute talks + 2 min discussion each; Moderator: Larry Hunter, University of Colorado Semantic Modeling for Identifying Mutation Patterns of Cancers. Vicky Chen, University of Pittsburgh Network-based Model of Oncogenic Collaboration for Prediction of Drug Sensitivity. Ted Laderas, OHSU Predicting Gene Regulatory Interactions by Intermediate Data Fusion. Rafael Rosengarten, Rice University/Baylor College of Medicine Protein Structure Determination Guided by Small Angle Scattering Data. Daniel Putnam, Vanderbilt University Large Scale Multimodal Clustering of Biomedical Literature. Saira Kazmi, Yale University 	Scaife LR6
	Lunch for students, faculty, and staff	Peterson
12:00 PM – 1:00 PM		Club Level
12.00 1 10 1.00 1 10	NLM – 2014 Grants Management Overview (Webinar for NLM Training Program Administrators)	Scaife 1217
	Parallel Focus Sessions C, three 6 minute talks plus 30 minutes discussion	
1:15 PM – 2:00 PM	 Focus Session C1; Moderator: Carol Friedman, Columbia University Utilization of a Code Status Tool in an Electronic Health Record. Haresh Bhatia, Vanderbilt University Automated Searches for Personalized Evidence to Prevent Hospital Acquired Infection. Amos Cahan, National Library of Medicine A Model of Signals of Inpatient Diagnostic Error Available in Clinical Records. Edna Shenvi, UC San Diego 	Scaife LR6
1.13 FWI - 2.00 FWI	 Focus Session C2; Moderator: Xinghua Lu, University of Pittsburgh Inferring Molecular Mechanism Dynamics following Spinal Cord Injury. William Baumgartner, University of Colorado Extracting Temporal Diffusion Biomarkers in Pediatric Brainstem Gliomas. Rafael Ceschin, University of Pittsburgh Digital Sorting Algorithm Unveils Genes Associated with Neural Stems. William Choi, Rice University/Baylor College of Medicine 	Scaife LR5
2:00 PM – 3:00 PM	 Poster Break Day 2 Group, 14 posters Health Care/Public Health: Steroid-induced Diabetes Mellitus in Patients with Inflammatory Bowel Disease. Sivan Kinberg, Columbia University Understanding Complex Clinical Decision Tasks for Better HIT System Design. Roosan Islam, University of Utah Exploring Neurological Symptom Assessments in Malignant Brain Cancer. Rebecca Hazen, University of Washington Using EHR Data to Predict Risk of VTE and Asthma. Alexander Cobian, University of Wisconsin Adequacy of Existing Standards for Representation of Late-Life Preferences. Justin Clutter, University of Utah ICD-9 Codes and the Identification of Nontuberculous Mycobacteria Infections. Scott Nelson, Veteran's Administration 	Peterson Lobby

	Clinical/Translational:	
	 Treatment Relation Extraction from Clinical Text. Cosmin Bejan, Vanderbilt 	
	8. Automatic Information Extraction of Microbiology Culture Reports Using NLP. Wen-wai Yim, University of Washington	
	 Systematic Review on Informed Consent for Neurological or Neurosurgical Emergency Research. Stephanie Feupe, UC San Diego Identifying Diagnosis of Alcohol Dependence Using Supervised Learning on EEG. Joel Brooks, Harvard University 	
	Translational and Bioinformatics:	
	11. Inferring Regulatory Regions and Transcription Factor Binding with ATAC-seq. David Moskowitz, Stanford University	
	 Quantitative Trait Loci controlling Recombination Rate in Mus musculus. Richard Wang, University of Wisconsin 	
	13. Novel Peptide-Displayng Phage Reagents for Detection of Noroviruses. Amy Hurwitz, Rice University/Baylor College of Medicine	
	 pRESTO: a Toolkit for High-Throughput Ig Repertoire Sequencing Projects. Jason Vander Heiden, Yale University 	
3:00 PM – 3:30 PM	Closing Session and Poster Awards	Scaife LR6
3:30 PM	Shuttle to Hotel	