

C*i*PCT

Clinical Informatics &
Patient-Centered Technologies

UNIVERSITY of WASHINGTON

Bi-Annual Newsletter
Autumn 2015

this issue

Welcome **P.2**

Alumni Spotlight **P.2**

HIMSS Conference Review **P.3**

Faculty Spotlight **P.4**

Recent Publications **P.5**

events of interest

CIPCT 2015

Annual Meeting & Orientation

September 11-12, Seattle, WA

**Healthcare Information &
Management Systems Society
(HIMSS) Conference 2016**

Feb 29 - Mar 4, Las Vegas, NV

www.himssconference.org

Welcome Message

A message from CIPCT Director Dr. George Demiris

As we are about to embark on the new academic year, it is time to reflect on the growth of our own CIPCT program here at the University of Washington and the broader field of biomedical and health informatics nationally and internationally. In addition to initiatives such as the meaningful use requirements or the integration of informatics competencies in clinical curricula that have translated into an increased interest in and focus on informatics tools and methods at both state and federal levels, we now see further growth in the field with the emergence of precision medicine. Precision medicine calls for the customization of health care whereby clinical processes and decisions, treatments and interventions are all tailored to the individual patient. Using sophisticated approaches such as molecular diagnostics, advanced imaging and analytics, we can identify appropriate customized therapies that address the genetic and environmental context of an individual patient. Informatics is key in this vision, as it provides the right tools and methods to capture, analyze and interpret data to support those precision medicine strategies and personalized medicine overall. President Barack Obama emphasized the importance of precision medicine in his 2015 State of the Union address, calling for a national precision medicine initiative. Starting with cancer treatment whereby cancer genomics can help better prevent and treat various cancers, precision medicine is anticipated to expand over time to enhance our understanding of health and disease more broadly across the population. The mission statement of the White House Precision Medicine Initiative calls for the need “to enable a new era of medicine through research, technology, and policies that empower patients, researchers, and providers to work together toward development of individualized treatments”(<https://www.whitehouse.gov/precision-medicine>).



Once again, informatics provides a platform not only to carry out traditional processes and services in a more efficient manner but to also redesign the entire health care process.

In this issue of our CIPCT newsletter, we learn more about Dr. Bill Lober and hear from our alum Kelii Gurfield. We are excited to welcome you to this new academic year!

A handwritten signature in black ink that reads "G Demiris".

Alumni Spotlight

A brief look at some of our recent graduates!



Kelii Gurfield (San Diego, CA) - Class of 2014

Kelii graduated from CIPCT in 2014 and resumed his work as a Regional Medical Officer for the US Department of State. Upon returning to the State Department, he focused on identifying challenges in integrating overseas and domestic operations in their unified EHR project. Thanks to the knowledge gained from CIPCT, he mapped many of their current complex workflows and sought ways to adapt them to conform to the features available in the EHR software. Furthermore, he continued to deliver clinical care at diplomatic missions overseas, and found that the curriculum of the health care delivery seminar portion of CIPCT provided an excellent foundation for helping to collaborate with his patients as they navigated their private sector healthcare systems domestically during medical evacuations and home leaves. Finally, he used the CIPCT-honed literature researching skills extensively in developing evidence-based protocols to guide the department in determining personnel suitability for overseas assignments.

Alumni Spotlight (continued)

A brief look at some of our recent graduates!



Serena Grewal (Renton, WA) - Class of 2014

Q: Please give a brief overview of your current role in the health care informatics field. A: I currently work at Swedish Medical Center as an Epic Ambulatory Optimization analyst. In this role, I serve as the Epic EHR liaison for over 40 outpatient clinics including primary care and various specialties at Swedish. I work closely with providers and clinical staff to provide end user support, solve issues and optimize workflows. I also work on application-specific or department-wide projects.

Q: From a student perspective, how would you describe the CIPCT program? A: The CIPCT program is a comprehensive program providing an overview of the dynamic and ever-changing clinical informatics field.

Q: How did the CIPCT program prepare you for your current position? A: The CIPCT program covers various aspects of this field so it helped me acquire a global understanding of this field. This program has helped me understand why the organization I work for pursues various projects and initiatives.

Q: What advice would you offer to students entering the program this year? A: This program offers a lot of opportunities to learn about the various aspects of clinical informatics. I would strongly suggest completing each assignment and each class with a goal of truly understanding the information. Learn as much as you can from this program because it will benefit you in your career.

Q: Where do you see the field of clinical informatics heading in the next 5 years? A: The field is growing so rapidly that it's hard to predict the next 5 years. As organizations mature on the use of EHRs, I believe there will be a greater reliance on data to help drive decision-making and overall quality improvement.

2015 HIMSS Conference

Chicago! This year's annual Healthcare Information and Management Systems Society (HIMSS) Conference was held in the sprawling convention center at McCormick Place, just south of downtown Chicago. The University of



Washington CIPCT program sent five representatives to hold court with over 40,000 healthcare IT professionals, clinicians, educators, executives and vendors from around the world. At a conference where the latest knowledge is shared, the newest innovations are demonstrated, and the largest and smallest organizations staffed booths as far as the eye could see, "University Row" was a happening place. Clinicians and healthcare technology workers browsed for opportunities to advance their careers with an advanced degree, while university alumni reconnected with their alma maters and current students checked in about the knowledge they were gaining and the networking they were doing at the four-day event. CIPCT representatives Jaime Jenkins (Operations Manager) and Paul Isaac (Program Coordinator) staffed UW's info booth with the help of current students Shazia

Washington CIPCT program sent five representatives to hold court with over 40,000 healthcare IT professionals, clinicians, educators, executives and vendors from around the world. At a conference where the latest knowledge is shared, the newest innovations are demonstrated, and the largest and smallest organizations staffed booths as far as the eye could see, "University Row" was a happening place. Clinicians and healthcare technology workers browsed for opportunities to advance their careers with an advanced degree, while university alumni reconnected with their alma maters and current students checked in about the knowledge they were gaining and the networking they were doing at the four-day event. CIPCT representatives Jaime Jenkins (Operations Manager) and Paul Isaac (Program Coordinator) staffed UW's info booth with the help of current students Shazia

Allibhai, Sheila Parinas and Jenn Tuohy, and connected with dozens of potential new students, and heard quite a few calls of "Go Huskies!" from the many UW alums and Washington residents in attendance.

It was a fun & productive week at HIMSS 2015 in the Windy City!



Faculty Spotlight

A bit about our faculty

Bill Lober, MS, MD

I've been at UW since 1997. I came to Seattle after an Emergency Medicine residency in Arizona (and a brief stint in Australia), to practice in the ED at UWMC. After a couple of years, I received a National Library of Medicine independent fellowship (F38) and moved to the newly formed Biomedical and Health Informatics program, first as a fellow, and then as faculty. In 2005 I was recruited to the School of Nursing, where I continue to work with Nurse Scientist collaborators at UW and other institutions, as well as with a mix of physicians, public health professionals, informaticists, IT professionals, epidemiologists, and others. If anyone is reading to the middle of this paragraph, what might be the difference between an informatics and an IT professional? My background before medical school was about 10 years of computer engineering, start-up experience, climbing, skiing, sailing, wilderness activities and eventually a part time job as a paramedic. My present role at UW lets me combine my technology and clinical interests, though doesn't leave as much time for the outdoor stuff as I'd like! I'm a Professor in the School of Nursing, with joint appointments in the Schools of Medicine and Public Health, reflecting the breath of my academic interests and collaborations. I teach about one course a year, very much value the opportunity, and enjoy much about the distance learning format used in the CIPCT program.



Q: What courses do you typically teach in the CIPCT program?

A: I taught NMETH 527 for three years in the past, and have taught NMETH 526 for the past 3 years.

Q: Would you tell us a little about your research interests?

A: I've always been interested in applying new methods of information delivery to improve communication between providers, patients, and public health. My website (<http://cirg.washington.edu>) says something along the lines of "... support research to improve individual and population health." Generally, people like to understand what domain you work in, as much as what you do, so I typically say that I work in "clinical informatics, public health informatics, and global health informatics". In each of these areas, my group and I build and deploy systems that address specific problems, typically by bringing information to a person who doesn't currently have it, collecting information from a person who currently can't easily contribute it, or integrating information across several sources. The information I care most about is clinical information, though we work both in individual health problems - patient reported outcomes, HIV care and treatment in PEPFAR countries, integration of patient-reported data into EMRs, and mHealth applications, - and in population health problems - observational cohorts in HIV research, program monitoring and evaluation, disease reporting, and public health emerging infections surveillance. One characteristic of our work is that we are almost always trying to build novel systems to deploy in some health care or government setting.

Q: How do you see information technology impacting the health care 'world' in the near future?

A: I think improvements in health care are largely about two areas, improving the science of medicine, and improving the art. Improving the science depends on advances in basic science, and in improving the translation of new scientific advances into new therapies. Improving the art (which to me includes not just individual practice, but also policy - the societal practice of medicine) means improving the delivery of medical care, ensur-

ing that therapies have a broad reach, and ensuring that patients' values and preferences are incorporated into their decision making and care. Informatics has a role throughout all these processes - my personal interests are more along the lines of improving the art through improved communication between patients and provider teams. While it's important to make technology broadly available and to address disparities in access to information systems, I think it's also important to "lead" - to address new trends and opportunities to incorporate improved uses of technology.

Q: What can our students do to best position themselves for a career in informatics?

A: It depends, of course, on what type of career you're looking for. I think the biggest challenge in supporting successful clinical implementations, which is the area in which there are the largest number of informatics positions, is understanding workflow - how to characterize workflows for patients, providers and organizations, and how to anticipate, describe, and optimize the impact of information improvements on those workflows. The workflows around patient care are the most interesting to me, but careers in informatics can also be driven by organizational information workflows around population data - quality measurement, for instance. There are a smaller number of career positions on the development side - designing and implementing new HIT products. I think for those positions, it's best to acquire core competencies in new technologies - mobile development, data management and visualization, etc.

Q: What advice would you give to a student enrolling in CIPCT this autumn?

A: Distance learning is probably the biggest adjustment for new students, but there is lots of peer & program support in learning how to work as an asynchronous group. But, it is challenging in a DL program to develop the informal relationships with faculty and other students that come more easily when you're wandering the same halls. Get the most you can from your scholarly projects - ensure they are relevant to the work you are doing, or want to do, and make the most of your time in the CIPCT community.

Recent Publications - 2015

Key: Faculty names in **bold**; CIPCT student names in *bold italics*

Berry DL, Hong F, Halpenny B, Partridge A, Fox E, Fann JR, **Wolpin S**, **Lober WB**, Bush N, Parvathaneni U, Amtmann D, Ford R. The electronic self report assessment and intervention for cancer: promoting patient verbal reporting of symptom and quality of life issues in a randomized controlled trial. *BMC Cancer*. 6458 Jul 56;58:957.

Bock C, Le T, Samuel A, Huang D, **Thompson HJ**, **Demiris G**. Visualizing Sensor Data through an Open Platform for Connected Devices. *Stud Health Technol Inform*. 2015;216:964.

Chaudhuri S, Kneale L, Le T, Phelan E, Rosenberg D, **Thompson H**, **Demiris G**. Older Adults' Perceptions of Fall Detection Devices. *J Appl Gerontol*. 6459 Jun 68.

Chi NC, **Demiris G**, Lewis FM, Walker AJ, Langer SL. Behavioral and Educational Interventions to Support Family Caregivers in End-of-Life Care: A Systematic Review. *Am J Hosp Palliat Care*. 6459 Jul 1.

Demiris G, Kneale L. Informatics Systems and Tools to Facilitate Patient-centered Care Coordination. *Yearb Med Inform*. 6459 Aug 57;54(5):59-21.

Joe J, Chaudhuri S, Le T, **Thompson H**, **Demiris G**. The use of think-aloud and instant data analysis in evaluation research: Exemplar and lessons learned. *J Biomed Inform*. 6459 Aug;90:628-91.

Koirala P, **Wolpin S**, Phuyal P, Basnyat B, Zafren K. A Pain in the Neck. *Wilderness Environ Med*. 6459 Sep;60(3):430-2.

Lee ES, Black RA, Harrington RD, **Tarczy-Hornoch P**, Facmi. Characterizing Secondary Use of Clinical Data. *AMIA Jt Summits Transl Sci Proc*. 2015;2015:92-6.

Nishimura AA, **Tarczy-Hornoch P**, Shirts BH. Pragmatic and Ethical Challenges of Incorporating the Genome into the Electronic Medical Record. *Curr Genet Med Rep*. 6458 Dec 56(8):645-211.

Oliver DP, Washington K, Wittenberg-Lyles E, Gage A, Mooney M, **Demiris G**. Lessons learned from a secret Facebook support group. *Health Soc Work*. 6459 May;84(6):59-33.

Overby CL, Devine EB, **Abernethy N**, McCune JS, **Tarczy-Hornoch P**. Making pharmacogenomic-based prescribing alerts more effective: A scenario-based pilot study with physicians. *J Biomed Inform*. 6459 Jun;99:683-59.

Puhr MI, **Thompson HJ**. The Use of Transitional Care Models in Patients With Stroke. *J Neurosci Nurs*. 6459 Aug;47(4):223-34.

Thompson HJ, Vavilala MS, Rivara FP. Chapter 1 Common Data Elements and Federal Interagency Traumatic Brain Injury Research Informatics System for TBI Research. *Annu Rev Nurs Res*. 2015;33(1):1-11.

Thompson HJ. Evidence-base for Fever interventions following stroke. *Stroke*. 6459 May;80(9):e32-e100.

Turner A, Osterhage K, Joe J, Hartzler A, Lin L, **Demiris G**. Use of Patient Portals: Personal Health Information Management in Older Adults. *Stud Health Technol Inform*. 2015;216:978.

Washington KT, Parker Oliver D, Gage LA, Albright DL, **Demiris G**. A multimethod analysis of shared decision-making in hospice interdisciplinary team meetings including family caregivers. *Palliat Med*. 6459 Aug 51.

Recent Publications - 2015 (continued.)

Key: Faculty names in **bold**; CIPCT student names in *bold italics*

Willgerodt MA, Abu-Rish Blakeney E, Brock DM, Liner D, Murphy N, **Zierler B.** Interprofessional education and practice guide no. 4: Developing and sustaining interprofessional education at an academic health center. *J Interprof Care.* 6499 Jul 5:5-5.

Wolpin SE, Parks J, Galligan M, Russell KJ, Berry DL. Information Needs of Men with Localized Prostate Cancer During Radiation Therapy. *J Cancer Educ.* 6499 Apr 7.

Zia JK, Le T, Munson S, Heitkemper MM, **Demiris G.** Download Alert:



2015-16 CIPCT Calendar Highlights

<u>UW</u> <u>Academic Calendar</u>	<u>Instruction</u> <u>Begins</u>	<u>Quarter Ends /</u> <u>Final Exams</u>
Autumn Quarter 2015	September 30	December 12-18
Winter Quarter 2016	January 4	March 12-18
Spring Quarter 2016	March 28	June 4-10

<http://www.washington.edu/students/reg/1516cal.html>

**APPLICATION DEADLINE FOR AUTUMN 2016 ADMISSION:
MAY 1, 2016**

Connect with UW CIPCT!



LinkedIn: "UW Clinical Informatics and Patient Centered Technologies CIPCT"

facebook

Facebook: "UW Clinical Informatics and Patient-Centered Technologies"

twitter

Twitter: "UW CIPCT: @cipct_uw"

CiPCT
Clinical Informatics &
Patient-Centered Technologies

cipct.uw.edu

Email: uwcipct@uw.edu

Toll-Free: 866-931-1687

W

SCHOOL OF NURSING
UNIVERSITY of WASHINGTON

UW Medicine

UW SCHOOL
OF MEDICINE