

**EDUCATION** **University of Illinois at Chicago**, Chicago, IL, 2015

Master of Science in Biomedical Visualization

*Project Research:* Design of customized mobile application for patient adherence to oral anticancer medications utilizing user-centered design

**Harvard University**, Cambridge, MA, 2013

Master of Liberal Arts in Biotechnology (Life Science concentration)

*Thesis:* Clustering analysis and network functional analysis of proteins identified in HL60 cells and neutrophils undergoing NETosis

**School of the Museum of Fine Arts**, Boston, MA, 2011

Continuing Education courses on design, figure painting and computer graphics

**University of Waterloo**, Waterloo, ON, 2004

Bachelor of Science, Honours Biochemistry, Co-operative Education Program

**WORK EXPERIENCE** **Experiential Instructional Designer-Developer**, Jump Simulation and Education Center  
Sept 2016 – Present, Peoria, IL

- Through collaboration with other team members, design and create engaging and effective instructional materials with sound instructional design principles
- Implemented Instructure Canvas learning management system and design courses for CME/CE
- Develop and provide recommendations for design, sequencing of instruction, use of assessments, and design of educational materials and activities
- Ensures communication, coordination, development and integration of educational work plan with all areas affected, including course facilitators, instructors, end users, information services, technology integration and site leadership as needed

**Freelance Medical Illustrator/Storyboard Artist**

Jan 2014 – Present

- Responsible for all aspects of the creative process from initial consultation to final deliverables

*Project:* Editorial illustration for The Northwestern Public Health Review

*Challenge:* To provide culturally-relevant illustration on targeted cancer education to Chinese, Korean and South Asian groups.

- Created sketches, thumbnails, concept art based on public health information on cancer while maintaining cultural relevance to each minority group
- Researched on best practices to create motifs that conveyed complex idea in a easy-to-understand and culturally respectful format
- Translated the author's desired key message into an illustration published in The Northwestern Public Health Review

**Creative and Communications Lead**, LifeLearn Inc.

Feb – Jul 2016, Guelph, ON

- Designed brochures and logos for veterinary branding and marketing, used by clients at Western Veterinary Conference 2016
- Led a website re-branding project for a veterinary ultrasound company. Created wireframes and UI designs based on interviewing key stakeholders

**Interactive Designer/2D Animator**, Boyd Lab, University of Illinois at Chicago

Aug 2014 – May 2015, Chicago, IL

- Designed user interface for mobile application and produced wireframes for interactive components
- Engaged and collaborated with stakeholders, end users and programmer
- Created 2D animations to explain medication information for low literacy patients

WORK  
EXPERIENCE  
(Continue)

**Graduate Assistant**, Office of Research, University of Illinois at Chicago

May 2014 – May 2015, Chicago, IL

- Designed and built database in Microsoft Access to track research grants

**Faculty Aide**, Harvard University

Sep – Dec 2010, Cambridge, MA

- Modeled histones and DNA double helix in PyMOL, which was made into a 3D animation for undergraduate students taking epigenetics class

**Research Associate**, Momena Pharmaceuticals

May 2008 – Jun 2013, Cambridge, MA

- Designed and executed *in vitro* cell based assays to investigate drug mechanism of action
- Developed quantitative PCR assays to detect expression of glycosylation enzymes

**Research Technician/Lab Manager**, Brigham and Women's Hospital

May 2007 – May 2008, Boston, MA

- Investigated the association between inflammation and white matter damage in preterm infants
- Managed grants and lab resources and communicate with collaborators and sales representatives
- Developed a multiplex assay for the detection of pro-inflammatory markers in blood samples

**Research Technologist**, Sanofi Pasteur

Apr 2005 – Dec 2006, Toronto, ON

- Developed a qPCR assay to detect and quantify Chlamydia in animal studies
- Generated recombinant poxviruses and analyzed them for genomic content and perform expression studies

SERVICE &  
MEMBERSHIP

Society for Simulation in Healthcare Member, 2016 – 2017

American Medical Informatics Association Student Member, Jan 2015 – Jan 2016

Association of Medical Illustrators Meeting Volunteer, 2014

Treasurer of the Student Association of Medical Artists, UIC, May 2014 – May 2015

Association of Medical Illustrators Professional Member, Sep 2013 – Present

Representative on the Harvard Graduate Council, Sep 2012 – Apr 2013

AWARDS &  
GRANTS

Jump ARCHES 2017 grant recipient for KneeVIEW: A Virtual Education Window for Musculoskeletal Training

Nelva B. Richardson Scholarship from Biomedical Visualization Program at UIC, 2015

UIC Graduate Student Travel Award, 2015

Vesalius Trust Research Grant, 2015

UIC Women In Science and Engineering Graduate Student Research Award Honorable Mention, 2015

Scientific Innovation Team Award for galactose- $\alpha$ -1,3-galactose Project at Momena Pharmaceuticals, 2010

Award for Team Spirit for Sanofi Pasteur's Melanoma Project, 2005

Institute of Biochemistry and Molecular Biology Work Report Award, 2003

The Herbert H. Carnegie Future Aces Foundation Scholarship, 1999

Ontario Scholar, 1999

- PRESENTATIONS** American Thoracic Society International Conference. May 18-23, 2018, San Diego, CA  
*Title: "Gamifying Tobacco-Free Kids: Employing Medical Visualization and Games in Youth Anti-Tobacco Outreach."*
- Spectrum of Ideas Showcase at IMSH. January 14, 2018, Los Angeles, CA  
*Title: "Engaging Young Minds: Getting Adolescents Thinking About Health"*
- Poster Presentation: Crawford SY, **Hsu GI**, Wirth SM, Cuellar S, Venepalli NK, Nayak AK, Boyd AD. Patient-centered design in developing mobile application to improve adherence to oral anticancer medications. American Pharmacists Association (APhA) Annual Meeting & Exposition. San Francisco, CA. March 25, 2017.
- Poster Presentation at UIC Student Research Forum. April 2, 2015, Chicago, IL  
*Title: "Design of Customized Mobile Application for Patient Adherence to Oral Anticancer Medications Utilizing User-Centered Design and Animation"*
- Poster Presentation and Lighting talk at Visualization of Biological Data Meeting. March 26, 2015, Cambridge, MA  
*Title: "Communicating Research using Visual Molecular Dynamics (VMD)"*
- Stenstrom Scholars Presentation at O.A. Parkes Symposium & International Student Conference. March 13, 2015, Augusta, GA  
*Title: "Molecular Visualization using Visual Molecular Dynamics (VMD)"*
- Invited talk at Consumer Health Informatics Midwest Conference. Oct 25, 2014, Fort Wayne, IN  
*Title: "Mobilizing for patient adherence to oral anticancer medications"*
- EXHIBITIONS** Association of Medical Illustrators Annual Meeting Student Salon, Jul 2015, Cleveland, OH
- Northwestern Public Health Reviews Annual Public Health Matters Seminar gallery exhibition of editorial illustration, Oct 2014, Chicago, IL
- Association of Medical Illustrators Annual Meeting Student Salon, Jul 2014, Rochester, MN
- Student Association of Medical Artists Art Show, Nov 2014, Chicago, IL
- National Museum of Health + Medicine Chicago, "Visible Human Male: Visualization of healthy and diseased organs", Jun 2014, Chicago, IL
- Biocommunication Academic Meeting, Salon digital showcase, April 2014, Toronto, ON
- PUBLICATIONS** Bosques CJ, Collins BE, Meador JW III, Sarvaiya H, Murphy JL, Bulik DA, **Hsu IH**, Washburn N, Sipsey S., Myette JR, Raman R, Shriver Z, Sasisekharan R, and Venkataraman G (2010). "Chinese hamster ovary cells can produce galactose- $\alpha$ -1,3-galactose antigens on proteins." *Nature Biotech.* 28 (11). 1153-1156.
- Hsu GIH, Crawford SY, Paoletta G, Wirth SM, Cuellar S, Venepalli NK, Wang E, Hughes D, and Boyd AD (2017). "Design of Customized Mobile Application for Patient Adherence to Oral Anticancer Medications Utilizing User-Centered Design." *Journal of Biocommunication*, [S.I.], v. 41, n. 1. ISSN 0094-2499.
- CERTIFICATION** **Board Certified Medical Illustrator**