



## VCLIC News and Happenings, Volume 42

Happy Holidays from VCLIC! As we wrap up this incredible year, we're filled with gratitude and excitement for our members (and readers) as well as for all our members' contributions to VCLIC and VUMC. It's hard to believe, but this is our last newsletter of 2023! We can't wait to share more exciting news and events with you in the upcoming year. We hope everyone has a wonderful end of year/new year celebration in the meantime.

This month, we are featuring **Michael Ward, MD, PhD, MBA**, Associate Professor in the Department of Emergency Medicine. We are thankful for Dr. Ward's wonderful contributions to VCLIC and Vanderbilt and are so happy to highlight him this month!

We are a bit light on other announcements but will have more for you in 2024, we promise! If there is ever anything you'd like to see VCLIC pursue or if you have any questions, please reach out to our team.

Finally, and per usual, we have several Center members who have **received awards**, been mentioned in the **news**, presented **lectures** and at conferences, **published papers**, have had **abstracts** accepted to conferences, and had **honors or fellowships** bestowed on them.

If you have any questions or would like to engage with our team, please email Elise ([elise.russo@vumc.org](mailto:elise.russo@vumc.org)).

## Fall 2023 VCLIPS



We would like to continue to remind everyone about our VCLIPS! Last year we introduced [Vanderbilt Clinical Informatics Practical Shorts](#) (VCLIPS). These are bite-size instructional videos on practical clinical informatics topics from expert VCLIC faculty (and staff). This year we are excited to release several more VCLIPS, covering new topics and featuring new VCLIC experts. We also plan to continue to offer synchronous workshops on the topics in highest demand.

Earlier this fall, we released 4 more VCLIPS series, including:

- [Exempt IRB Research](#) (Elise Russo, MPH)
  - Learn about human research protections, exempt research, and how to submit an exempt protocol to the IRB using VUMC/VU's DiscoverE system
- [Address Geocoding](#) (Bryan Steitz, PhD)
  - Learn how to convert text-based addresses to geographic coordinates using the free geocoding tool POINT
- [Using Epic to Support Clinical Research](#) (Eddie Qian, MD)
  - Learn how to integrate your randomized trial into Epic, including automatic implementation of trial criteria and patient randomization
- [Signal Data](#) (Sean Huang, MD)
  - Learn about the wealth of efficiency data available for research within Epic's analytics tool called Signal

Coming soon:

- Agile Methods for Leading a Clinical or Research Informatics Team
- Implementing and Using PROMs Data
- Medication Data Tools
- Qualitative Methods
- SlicerDicer

Last year's VCLIPS are still available, including: [Introduction to Epic and Build Capabilities](#), [Data Resources](#), [Human Centered Design Principles and Processes](#), and [Evaluation and Dissemination of HealthIT Interventions](#).

You can also access, contribute to, comment on or ask questions about all of the VCLIPS content (and more) on our [Confluence site](#).

We are in the process of planning next semester's VCLIPS synchronous, in-person sessions and will have more information for you on those very soon. Please reach out to Adam Wright or [Elise Russo](#) with any questions, suggestions or feedback. Let us know if you have ideas for additional VCLIPS that we could produce – we're hoping to grow our library over time.

## VCLIC Events

Our next DBMI and VCLIC Grand Rounds presentation, previously scheduled for **December 13<sup>th</sup>**, has been **rescheduled to February 7th from 12:00-1:00 pm** at 2525 West End, 8110 (and streamed on MS Teams) and will feature several VUMC Clinical Informatics researchers (physicians, and leaders). **Dr. Adam Wright** will provide an overview of the state of the Vanderbilt Clinical Informatics Center (VCLIC) and the programs that VCLIC coordinates. **Dr. Eddie Qian** will review the ACORN trial, a pragmatic trial in the EHR published recently in JAMA. **Dr. Siru Liu** will review efforts to improve CDS using generative and explainable AI. **Dr. Dara Mize** will review HealthIT's activities and roadmap.


VANDERBILT UNIVERSITY | Department of  
MEDICAL CENTER | Biomedical Informatics

Grand Rounds  
**VUMC Clinical Informatics Update**

February 7, 2024  
12:00pm - 1:00pm CT  
In Person at 2525 West End, 8110 or streamed via MS Teams

Additional Details: <https://www.vumc.org/vcllic/events-announcements>

VCLIC  
VANDERBILT CLINICAL INFORMATICS CENTER



Adam Wright, PhD  
Dara Mize, MD, MS  
Siru Liu, PhD  
Eddie Qian, MD, MS

We will have more updates and announcements in the new year!

Featured Member: Michael J. Ward, MD, PhD, MBA



**Michael Ward, MD, PhD, MBA** (he/him/his) is Associate Professor of Emergency Medicine and Biomedical Informatics and is the Research Director for the Division of Emergency Research at VUMC. He is a practicing emergency physician at Vanderbilt and the Tennessee Valley Healthcare System Veteran Affairs (VA) Medical Center. He completed an operations research fellowship and his doctoral training in operations management at the University of Cincinnati. He joined the faculty at VUMC in 2013 as an NHLBI K12 Scholar. He then received a K23 from NHLBI focusing on the inter-facility transfer of patients with acute myocardial infarction and was mentored by Dr. Sunil Kripalani.

In his own words,

What are you working on?

“My research is funded by the National Institutes of Health (NIH) and the VA and is focused on healthcare delivery science in acute, unscheduled care settings such as the emergency department. This work includes the development of feedback systems in prehospital and urgent outpatient settings focusing on prescribing and care practices that are designed with the end-user in mind. I am also the multi-PI of an R18 grant from AHRQ developing a SMART on FHIR pneumonia clinical decision support tool called “ePneumonia” for implementation here at VUMC.”

How have you been and plan to be involved in VCLIC?

“I feel like my involvement with VCLIC continues to expand. Beyond all of the wonderful collaborators in VCLIC, I’m increasingly thinking about the role that clinical decision support plays as part of a broader approach to changing clinician behavior. As a result, we are preparing to work with the Clinical Informatics Core as part of our ePneumonia grant and hopefully in a future trial we are proposing on prescribing!”

What areas are you interested in and what would you like to collaborate with others on?

“I love systems-based problems. In particular, I’m very interested in how we think about the adoption of evidence-based care in time pressured and hectic clinical settings like the emergency department and other urgent outpatient settings. Thinking about the clinical environment, how the clinician engages the electronic health record and their surrounding environment, combined with how post-encounter events are fed back to them, are the types of problems that I am most passionate about. This really spans the acute care setting from the prehospital environment with emergency medical services, to the emergency department/urgent care, and inpatient hospital settings.”

## Upcoming Conference Submission Deadlines

- [Anesthesiology Annual Meeting \(ASA\)](#)
  - Problem Based Learning Discussion Sessions: February 6, 2024
- [American Nursing Informatics Association \(ANIA\)](#)
  - Poster Abstracts Submission Deadline: December 15, 2023
- [Society for General Internal Medicine \(SGIM\)](#)
  - Abstract Submission Deadline: December 20, 2023
- [AcademyHealth Annual Research Meeting \(ARM\)](#)
  - All Submissions Deadline: January 11, 2024
- [Society for Industrial and Applied Mathematics \(SIAM\) Annual Meeting](#)
  - Minisymposium Proposal Submissions Deadline: January 10, 2024
  - Contributed Lecture, Poster, Miniposterium, and Minisymposium Presentation Abstracts Submission Deadline: January 31, 2024
- [Symposium on Artificial Intelligence for Learning Health Systems \(SAIL\)](#)
  - Abstract Submission Deadline: Late January 2024
- [International Conference on Machine Learning \(ICML\)](#)

- Full Paper Submission Deadline: February 1, 2024
- [American Society of Clinical Oncology \(ASCO\) Annual Meeting](#)
  - Abstract Submission Deadline: February 6, 2024

Details on upcoming conferences and conference deadlines can be found on our Confluence page, [here](#).

**For those of you attending conferences and presenting posters, we have a template on our [Confluence page](#) that we would encourage you to use.**

## Presentations, Interviews, Honors, and Awards

### Honors/Awards



Congratulations to **Allison McCoy, PhD** for being newly promoted to Associate Professor of Biomedical Informatics! We are so excited to see the continued impact and innovations you will bring in your new role!

- VUMC successfully recertified as a **HIMSS [EMRAM Stage 6 hospital](#)**. Reviewers singled out the **Clickbusters program** (a collaboration between VCLIC and HealthIT) and our **AI Steering Committee** for special recognition, concluding that VUMC is a “forward-thinking data-driven organization.” Congratulations to all the HealthIT and VCLIC staff involved in the EMRAM recertification and the hard work and impressive achievements that qualified us for this recognition!
- **Joey LeGrand, PharmD, MS** has open sourced an open drug information data engineering project, [SageRx – open drug data pipelines curated by pharmacists](#), that he has been working on for the past few years!
  - A platform of one-click open drug data pipelines that that can automatically extract up-to-the-day current data and not only load it all into a common database so it’s easier to work with, but also transform it into something greater than the sum of its parts. Data

sources currently include **NLM** (RxNorm, RxTerms, ATC), **FDA** (NDC Directory, Orange Book, Purple Book, Recalls), and **CMS** (NADAC, Part D Plans).

- \*Stay tuned for the release of VCLIPS related to this tool, coming in January 2024!\*
- **Laurie Novak, PhD, Colin Walsh, MD, MA** and **Megan Salwei, PhD** are co-principal investigators on a three-year grant awarded to Peter Embi from Kaiser Permanente sponsored by the Gordon and Betty Moore Foundation for the research project “Advancing Novel Approaches and Best Practices for Effective AI-Enabled Diagnosis using Randomized Trials, Algorithmovigilance, and Proactive Risk Assessment.” Congrats!
- Congrats to **Megan Salwei, PhD** for having two of her papers from CRISS recognized by the Human Factors and Ergonomics Society (HFES) year in review!
  - Paper 1: Militello LG, **Salwei ME**, Reale C, Sushereba C, Slagle JM, Gaba D, **Weinger MB**, Rask J, Faiman J, Andreae M, Burden AR, **Anders S**. [Adapting Cognitive Task Analysis Methods for Use in a Large Sample Simulation Study of High-Risk Healthcare Events](#).
  - Paper 2: **Salwei, M.E.**, Hoonakker, P.L.T., Wiegmann, D., Pulia, M., Patterson, B.W., Carayon, P. (2023). [Post-implementation usability evaluation of a human factors-based clinical decision support for pulmonary embolism \(PE\) diagnosis \(Dx\): PE Dx Study Part 1](#).

## Conferences and Other Presentations

- **Horst S. McCoy AB**. “Telehealth enhances retention of patients with inflammatory bowel disease within a tertiary care inflammatory bowel disease center.” Poster presentation, Crohn’s & Colitis Congress. 2024.
- **McCoy A**. Walker B. Cabler J. **Osterman T**. "Pull it Together: Combining Plan and Wrap-Up Tabs." Accepted Presentation, Epic XGM. 2024.
- **McCoy A, Bachmann J**. "Implementing Patient-Reported Outcome Measures at the Enterprise Level." Accepted Presentation, Epic XGM. 2024.
- Duben C., **Alrifai M.W**. "NeoCommand: A Throughput Management and Comprehensive Situational Awareness Tool for Inpatient Clinicians." Accepted Presentation, Epic XGM. 2024.
- **Megan Salwei, PhD** attended the 2024 San Antonio Breast Cancer Symposium and [presented her poster](#) that discussed the challenges and opportunities for patient-centered decision support design.
- The Coalition for Health AI (**CHAI**) is working to develop “guidelines and guardrails” for the credible, fair and transparent use of AI in health systems. **Laurie Novak, PhD** and **Megan Salwei, PhD** have been involved in the working groups which are working to develop key considerations and evaluation criteria for the development, implementation, and use of AI.
  - **Megan Salwei, PhD** [presented results](#) of a large survey they conducted, which gathered input from the broader CHAI community on the draft considerations and evaluation criteria.
- **Yaa Kumah-Crystal, MD, MPH, MS** was featured in the Grand Rounds event, titled “**Ethical Implications of AI in Clinical Care & Research**”, co-hosted by VUMC Ethics Committee and DBMI on 12/13.

## Publications

**Kripalani S**, Norton WE. [Methodological progress note: De-implementation of low-value care.](#) *J Hosp Med*. Published online December 13, 2023. doi:10.1002/jhm.13257

Wolf RM, Hall M, **Williams DJ**, Antoon JW, **Carroll AR**, Gastineau KAB, Ngo ML, Herndon A, Hart S, Bell DS, **Johnson DP**. [Disparities in Pharmacologic Restraint for Children Hospitalized in Mental Health Crisis.](#) *Pediatrics*. Published online December 11, 2023:e2023061353. doi:10.1542/peds.2023-061353

**Carroll AR**, Hall M, Noelke C, Ressler RW, Brown CM, Spencer KS, Bell DS, **Williams DJ**, Fritz CQ. [Association of neighborhood opportunity and pediatric hospitalization rates in the United States.](#) *J Hosp Med*. Published online December 10, 2023. doi:10.1002/jhm.13252

Dogra S, Aguayo C, Xiang Z, Putnam J, **Smith J**, Johnston C, Foster DJ, Lindsley CW, Niswender CM, Conn PJ. [Activation of metabotropic glutamate receptor 3 modulates thalamo-accumbal transmission and rescues schizophrenia-like physiological and behavioral deficits.](#) *Biol Psychiatry*. Published online December 5, 2023:S0006-3223(23)01753-5. doi:10.1016/j.biopsych.2023.11.023

Hendricks-Sturup R, Simmons M, **Anders S**, Aneni K, Wright Clayton E, Coco J, **Collins B**, Heitman E, Hussain S, Joshi K, Lemieux J, **Lovett Novak L**, Rubin D, Shanker A, Washington T, Waters G, Webb Harris J, Yin R, Wagner T, Yin Z, Malin B. [Developing Ethics and Equity Principles, Terms, and Engagement Tools to Advance Health Equity and Researcher Diversity in AI and Machine Learning: Modified Delphi Approach.](#) *JMIR AI*. Published online December 6, 2023;2:e52888. doi:10.2196/52888.

Lingham V, Chandwarkar A, Miller M, Baker C, Genes N, Hellems M, Khanna R, **Mize D**, Silverman H. [A Systematic Approach to the Design and Implementation of Clinical Informatics Fellowship Programs.](#) *Appl Clin Inform*. Published online December 6, 2023;14(05):951-960. doi:10.1055/s-0043-1776404.

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**Mayberry LS**, Wiebe D, Parks M, Campbell M, Beam A, Berg C. [Acceptability and Feasibility of FAMS-T1D mHealth intervention to optimize self- & social regulation for emerging adults with type 1 diabetes.](#) *Res Sq*. Published online November 21, 2023:rs.3.rs-2667134. doi:10.21203/rs.3.rs-2667134/v1

Grabowska ME, Van Driest SL, **Robinson JR**, et al. [Developing and evaluating pediatric phecodes \(Peds-Phecodes\) for high-throughput phenotyping using electronic health records.](#) *J Am Med Inform Assoc*. Published online December 1, 2023:ocad233. doi:10.1093/jamia/ocad233

Epstein RH, Mueller DA, Walco JP, Manresa CD, Banks SE, **Freundlich RE**. [Development and Validation of an Automated Tool to Retrieve and Curate Faculty Publications of Academic Departments](#). *Cureus*. 2023;15(10):e47976. doi:10.7759/cureus.47976

Hayes J, Mahoney AB, Ayers C, Sarma A, Ess KC, Hunley TE, **Smith CM**. [A rare cause of posterior reversible encephalopathy syndrome: Acute lymphoblastic leukemia](#). *Clin Case Rep*. 2023;11(11):e8238. doi:10.1002/ccr3.8238

**Moore-Lotridge SN**, Daryoush JR, Wollenman CC, et al. [CRP Predicts the Need to Escalate Care After Initial Debridement for Musculoskeletal Infection](#). *J Pediatr Orthop*. Published online November 24, 2023. doi:10.1097/BPO.0000000000002573

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**Peterson JF**, Veenstra DL, Williams MS, Hao J, Guzauskas GF. [Population Genomic Screening for Three Common Hereditary Conditions](#). *Ann Intern Med*. 2023;176(11):eL230322. doi:10.7326/L23-0322

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Cho LD, Rabinowitz G, Goytia C, Andreadis K, Huang HH, Benda NC, Lin JJ, Horowitz C, Kaushal R, **Ancker JS**, Poeran J. [Development of a novel instrument to characterize telemedicine programs in primary care](#). *BMC Health Serv Res*. 2023;23(1):1274. doi:10.1186/s12913-023-10130-5

Schafer R, Dietrich MS, Kennedy HP, **Mulvaney S**, Phillippi JC. ["I had no choice": A mixed-methods study on access to care for vaginal breech birth](#). *Birth*. Published online November 15, 2023. doi:10.1111/birt.12797

Triozzi JL, Hsi RS, Wang G, Akwo EA, **Wheless L**, Chen HC, Tao R, Ikizler TA, Robinson-Cohen C, Hung AM; VA Million Veteran Program. [Mendelian Randomization Analysis of Genetic Proxies of Thiazide Diuretics and the Reduction of Kidney Stone Risk](#). *JAMA Netw Open*. 2023;6(11):e2343290. doi:10.1001/jamanetworkopen.2023.43290

Morley TJ, Willimitis D, Ripperger M, Lee H, Han L, Zhou Y, Kang J, Davis LK, Smoller JW, Choi KW, **Walsh CG**, Ruderfer DM. [Evaluating the impact of modeling choices on the performance of integrated genetic and clinical models](#). *medRxiv*. Published online November 1, 2023:2023.11.01.23297927. doi:10.1101/2023.11.01.23297927



## Accepted/In Press

**Dye ME, Runyan P, Scott TA, Dietrich, MS, Hatch III LD, France D, & Alrifai MW.** A Heavy Lift: Workload and Burnout of Clinicians Caring for Infants in a Neonatal Intensive Care Unit. *Journal of Perinatal & Neonatal Nursing*. Accepted for publication.

## Reminder to Send Updates for Recognition

**If you (or another VCLIC Member) publishes a paper; has an abstract accepted at a conference; are interviewed for or written up in a news article; receive any awards, accolades, or honors; or completed/are currently undertaking any projects you would like to highlight, please email me with or forward this information:**

- Names of VCLIC members/VUMC staff who participated in or worked on the project, paper, or abstract (or who received the award/honor)
- The title of the Project, Paper, Abstract, Article, or Award
- The journal, conference, or news publication (this can be podcasts, radio, or more “traditional,” news mediums)

Nothing is too big or too small to celebrate, and this information will be featured on the [News section of our website](#) as well. As time goes on, I am hoping to also improve our Twitter presence, so feel free to add, tag, or tweet us at [@VUMC\\_VCLIC](#) too!

**Thank you, and see you soon!**