



2024 Election for Board Director

Candidate: Sabrina Hsueh

Professional Title & Affiliation

Director of Ethical AI and External Innovation, Pfizer

Personal Statement / Short Biography

My passion for AMIA's future stems from a desire to foster inclusion, cross-disciplinary collaboration, continuous engagement with members and stakeholders. This vision prioritizes thought leadership in emerging areas like AI governance and health equity.

As innovation accelerates, we have a unique opportunity to convert risk management into a driving force for innovation. By joining forces and setting strong standards, we can empower our AMIA community for a brighter future collectively.

My Qualifications to serve as AMIA Board Director include but are not limited to the following:

(1) Promoting Diversity & Member Development:

- A champion for equity and diversity, I spearheaded initiatives like the gender representation task force, podcasts for promoting new leaders, and interdisciplinary career development programs.
- I'm dedicated to supporting underrepresented groups and equipping the next generation of informaticists to lead in responsible health AI development.

(2) Proven Leadership Experience in AMIA (10+ Years):

- My dedication is reflected in roles like Co-Chair of AMIA Women in AMIA Steering Committee, FAMIA, Vice-Chair of AMIA 2022 SPC, Co-Chair of AMIA AI Showcase 2023, and Past Chair of CPHI WG.
- Under my leadership, these groups flourished, becoming some of AMIA's most active.
- My strength lies in aligning resources for emerging topics and bridging the gap between data science/AI and the science of care for delivery.

(3) Enhancing Cross-disciplinary Volunteer Engagement:

- I recognize volunteers' vital role and possess the ability to motivate young talent.
- I propose fostering collaboration with other professional societies active in the areas of overlapping interest. For example, forming health AI and equity partnerships with ACM, SBM, IMIA, EFMI, and WHO to create mutually beneficial opportunities for broader member and stakeholder engagement.

(4) Expertise in AI Governance & Health Equity:

- My diverse background in research, industry, policy, and non-profit work allows me to collaborate effectively and position AMIA as a leader in AI governance and medical AI safety standards.
- My continuous devotion to prompting participation with patient groups and underserved communities brings in new perspectives needed for co-designing solution.

(5) Leveraging My Network & Experience:

- Extensive experience hosting major conferences like AMIA, MEDINFO, MIE, and ACM SIG-KDD.
- Strong understanding of real-world issues in healthcare and life sciences across big tech, pharmaceuticals, and venture-backed healthcare AI startups.
- Editorial board positions in prestigious journals (e.g., BMJ) and textbook-publishing experiences with publishers position me to contribute significantly to AMIA's network and expertise.

My passion, leadership skills, and expertise in responsible AI innovation position me to be a valuable asset to AMIA if elected as a Board Director. Together, we can help our talent in the community to navigate how best to strengthen AMIA's role as a leading force in shaping the responsible development and implementation of AI in healthcare.

Please describe your leadership skills and experience, inside and outside of AMIA

Leadership Skills:

- (1) Membership and Audience Growth: Demonstrated leadership in attracting and engaging a wider audience from interdisciplinary areas and grew membership in the workgroups and committees involved when needed.
- (2) Mentorship and Recognition for Next Generation: Provided leadership and recognition opportunities for young talent through initiatives like the AMIA Consumer Health Informatics WG Best Student Paper Award and the WIA-sponsored signature award nominations, first look program, mentoring events, and gender representation task force. I also help the next generation identify potential role models through interview opportunities via podcasts.
- (3) Visionary Focus: I consistently identify emerging trends and spearhead thought leadership in areas like patient-generated health data, citizen science, trustworthy AI, and health equity, particularly for women's health gaps. This translates into successful member and stakeholder engagement activities.
- (4) Deliverable-Oriented: My leadership style emphasizes concrete results. I've led initiatives that resulted in impactful deliverables such as co-published position papers and surveys, textbooks, and thought-provoking special issues in journals.

Experiences Inside AMIA:

- (1) Visionary Leader: As a leader who can set a clear vision and motivate others, my continuous contribution highlights a passion for AMIA's future and a desire to foster inclusion, collaboration, and engagement.
- (2) Proven Track Record: My experience within AMIA includes holding leadership positions across various work groups and committees. This close exposure to the Board's operations allows me to provide valuable insights and ensure a smooth liaison if elected.
- (3) Growth and Accomplishment: My leadership has led to growth and achievement within AMIA as indicated in the above statement.
- (4) Collaboration and Partnership Building: I have a proven track record of fostering cross-disciplinary collaboration and partnerships with other professional societies and non-profit organizations. This ability to identify new areas of collaboration and build strong relationships with diverse stakeholders is essential for AMIA's continued success.

Experiences Outside AMIA:

- (1) Deep Industry Expertise: My diverse background across big tech, pharmaceuticals, and healthcare AI startups equips me with a strong understanding of real-world challenges and

opportunities in healthcare and life sciences. This allows me to bridge the gap between theoretical advancements and practical implementation.

(2) Proven Management Skills: My experience in hosting major conferences demonstrates my ability to command complex projects, lead teams, and deliver successful outcomes. This skillset is crucial for navigating AMIA's strategic initiatives.

(3) Strong cross-industry and cross-disciplinary networks: My board experience in other non-profit organizations (such as ACM, CIE-GNYC) and editorial experience in hosting special issues of journals and textbook publishing highlight my extensive networks in the emerging fields, which can help promote AMIA's thought leadership and foster collaboration with both internal and external stakeholders.

Please describe your experience and accomplishments in informatics

(1) A Leader in Responsible AI Innovation:

My career in informatics is driven by a passion for translating innovation into real-world impact on healthcare delivery and patient outcomes. With extensive experience in AI leadership across large enterprises and startups, I'm well-positioned to champion responsible AI practices in the field, taking AI innovations from the lab to real-world use with behavioral change and adoption programs in the human-AI co-pilot workflows.

(2) Balancing Innovation with Humanity:

While many view responsible AI purely as risk management, I believe it fosters ethical and equitable advancements. In my cross-industry leadership positions, I've successfully navigated this balance, enabling responsible AI best practices beyond principles and policies while accelerating innovation in medicine.

(3) Leadership in Industry and Community:

- Industry leader:

Currently, I serve as Ethical AI and External Innovation Lead at Pfizer. My prior experience at IBM Research and healthcare AI start-ups included significant publications and patents, such as the AMIA distinguished award-winning real-world evidence approach for personalized care planning, the co-invention with Dr. JianYing Huâs team that can help identify group and individual-level risk factors via risk-driven patient stratification, the highly-cited active learning project that learns to discern crowd-sourcing data quality for AI/ML model training. I also chaired the Health Informatics Community across global labs and co-organized PGHD and explainable/actionable AI workshops, culminating in my election to the IBM Academy of Technology.

- Community Advocate:

My commitment extends beyond industry. I actively participate in the formation of public-private partnership for AI standardization and discussions in public forums. I serve on the Practitioner Board of the Association of Computing Machinery (ACM), the US Chamber of Commerce AI Working Group, and the NIST AI Safety Institute. Within AMIA, I co-chaired the AI Evaluation Showcase with Dr. Zhou Li in 2023, co-edited the special issue of AI Evaluation in JAMIA Open with

Dr. Gretchen Jackson and Dr. Li, partnered with Harvard Medical School-DCI Networks on the Trustworthy AI conference, and co-chaired the AI RWD work group. The efforts have led to AI evaluation reporting guidelines and frameworks that exposes the impact of RWD transparency for downstream AI applications and cross-disciplinary AI co-pilot workforce training .

(4) Impactful Contributions:

(4.1) Research and Publications: My dedication is reflected in over 80 technical papers, patents, and the most recent co-edited textbook, "Personal Health Informatics: Patient Participation in Precision Health", demonstrating my visionary approach to patient participation in AI for medicine.

(4.2) Standards and Partnerships: My leadership has been instrumental in private-public partnerships for AI standardization. I contributed to the IEEE P7008 Standards on AI Nudging and the NIST AI Safety Consortium.

(4.3) Mentorship and Next-Generation Initiatives: I'm deeply committed to fostering the next generation. I lead the Women in AMIA Steering Committee, co-host the ACM/AMIA podcast series, and am currently co-founding a special interest group with IMIA/WHO to advance global health equity.

My passion, leadership, and proven track record of impactful contributions position me as a valuable asset to AMIA if elected. I'm confident that together, we can advance the field of informatics and its positive impact on healthcare and life sciences.

Share any unique skills or perspective you bring to this role

(1) Vision and Commitment:

My vision is to ignite a collaborative spirit within AMIA by fostering cross-disciplinary teams to address the growing need for AI expertise in healthcare and life sciences. This approach will position AMIA as a leader in shaping the future of health informatics and elevate the leadership role of informatics (e.g., CMIO, Chief AI Officer) in the new era.

(2) Experience and Qualifications:

- Leveraging my deep understanding of AMIA's mission and extensive experience as a Fellow and Work Group/Steering Committee Chair, I possess a deep understanding of AMIA's mission, north star, and challenges. My unique skill lies in fostering collaboration across the informatics landscape. My strength lies in bridging the gap between academia, industry, health systems, standards bodies, public-private partnerships, and health AI users (e.g., healthcare professionals, consumers, patients, caregivers). This collaborative approach translates high-level AI governance principles into practical workflows and best practices for diverse stakeholders. For example, formulating medical AI safety standards and enabling its tooling in workflows demonstrates the importance to transform risk management into a driver of innovation.

(2) Key Goals if Elected:

- Extend AMIA membership to include diverse voices and expertise with a broader definition of health informatics. In particular, there is a potential to focus on interdisciplinary, non-traditional pathways and underrepresented groups through targeted outreach programs and mentorship opportunities.

- Champion the creation of a leadership program to connect experienced informaticists with the next generation, equip the next generation with the skills to navigate the evolving informatics landscape, and promote diversity in the field.

- Leverage my strong industry background and connections to foster closer ties with industry, startups and ventures, supporting innovation and knowledge sharing within AMIA, as well as consensus building for health AI evaluation and safety standard setting.

- Advocate for strong industrial AI safety standards and benchmarks in healthcare and actively engage AMIA in shaping policy recommendations based on the extensive collective expertise in real-world evidence generation and patient-centered care.

(3) Global Collaboration:

The new HEROes initiative with IMIA, WHO and UN (AI for Goods) aims to explore how best to align informatics efforts across the globe with a clearer role for informatics in closing global health gaps. AMIA's leadership in this initiative will be crucial.

Please describe your teamwork experience and skills

(1) Teamwork and Collaboration: Building Bridges in Informatics

My passion for informatics extends beyond technical expertise. Throughout my career, I've thrived in cross-functional collaboration, fostering teamwork across diverse sectors like academia, industry, healthcare, and life sciences. This collaborative spirit translates perfectly to the various groups within AMIA.

This collaborative spirit is evident in my leadership roles:

- **Leading Key Health Informatics Communities:** As the leader of AMIA SPC, Consumer & Personal Health Informatics WG, and WIA steering committee and Leadership and Awards Subcommittee, I am helping develop a cross-mentorship culture that fostered collaboration between researchers, developers, and clinicians and promote diversity in the workforce of health informatics.

- **Co-Chairing Work Groups and Initiatives:** My co-chairing roles within AMIA (e.g., WIA Steering Committee, AI Evaluation Showcase, AI RWD work group with DCI-networks) and the co-founding of a special interest group with IMIA/WHO demonstrate my ability to bring together experts from different backgrounds, fostering collaboration for impactful results.

- **Partnering with External Organizations:** Collaboration with leading organizations such as ACM, SBM, CHAI, Harvard Medical School, and the US Chamber of Commerce AI Working Group showcase my ability to build bridges and work effectively with external stakeholders.

(2) Effective communication and consensus building are my cornerstones for successful collaboration:

- Co-publishing white papers and co-editing Textbooks / Special Issues: Co-publishing papers with a joint position and co-editing publications like the textbook "Personal Health Informatics: Patient Participation in Precision Health" required clear communication and collaboration to achieve a common vision.

- Serving on Practitioner Boards and Public Forums: My service as a board member on the ACM Practitioner Board allows me to communicate complex information to diverse audiences and advocate for collaborative solutions.

- Leading Podcast Series: Co-hosting the ACM/AMIA podcast series honed my communication skills and ability to collaborate with diverse experts.

- Fostering a collaborative environment is key to my leadership philosophy:

* Leading Women in AMIA Steering Committee: This role showcases my commitment to diversity and inclusion, fostering a collaborative environment where everyone can contribute and thrive. In addition, I would like to steer the collaboration efforts to focus on tangible deliverables for impacts. For example, the most recent collaboration between WIA and DEI will yield several co-developed initiatives this year.

* Developing AMIA Leadership Programs (Goal): Our proposed goal of creating such programs demonstrates a focus on building a supportive network and empowering the next generation of informaticists.

By combining my vision for impactful AMIA initiatives, collaborative spirit, cross-functional communication skills, and commitment to shared goals, I'm confident that I can be a valuable asset to the AMIA board. I believe in the power of teamwork to drive innovation in informatics, and I'm eager to work together to advance the field and its impact on healthcare.

AMIA Engagement and Participation

AMIA member – 10-20 years

My journey with AMIA began with a passion for AI in medicine. The AMIA community has fostered my growth into a leader with a diverse background in health AI research, industry, and policy. I'm particularly interested in AI governance and health equity, areas critical for ensuring responsible AI development in healthcare. My focus on inclusion and collaboration aligns perfectly with AMIA's mission of fostering a community that integrates data science with the science of care, ultimately contributing to redefining the role of informaticists in the healthcare landscape.

Some specific involvements include:

(1) Chair, AMIA Consumer and Personal Health Informatics WG (2017-2019):

- Increased membership by 5x (200+ members), fostering an engaged community.

- Established the AMIA Consumer Health WG Best Student Paper Award, demonstrating commitment to the next generation of researchers.
- Led a series of workshops on patient-generated health data and citizen science for four years (AMIA 2014, MIE 2014, MEDINFO 2015, AMIA 2015, SBM 2015, SBM 2016, AMIA 2016, AMIA 2017), laying the groundwork for responsible AI development in consumer health.
- Co-edited a special issue in JAMIA Open on Patient-generated Health Data for Precision Medicine, highlighting its role in personalized care.
- Published a new textbook for workforce training "Personal Health Informatics: Patient Participation in Precision Health" (Springer Nature, 2023), which summarizes status quo for the new generation of researchers and practitioners.

(2) AMIA Scientific Community Recognition

- 2016 Face of AMIA interview
- 2017 Annual Symposium SPC
- 2018 Distinguished Paper Award
- 2021 Elected as Fellow of AMIA (FAMIA)
- 2022 Vice Chair, AMIA Annual Symposium SPC

(3) AI Evaluation and Governance

- Co-Chaired the AMIA 2023 AI Evaluation Showcase.
- Established guidelines for AI evaluation reporting and reviewing.
- Showcased the evaluation of 40+ AI projects across technical performance, workflow, and patient outcomes in the three AMIA signature conferences
- Co-edited a special issue of JAMIA Open on AI evaluations.
- Co-organized a MIE 2024 tutorial on the evaluation framework and guidelines.

(4) AMIA Public Policy Committee (2022 to present):

- Partnered with organizations like Harvard Medical School DCI Networks to advocate for ethical AI in healthcare, aligning with the growing need for AI governance.

- Led the AI Real World Data (RWD) workgroup on RWD transparency and governance for AI development.

- Renewed AMIA principles into healthcare quality standards.

- AMIA Hill Day 2024.

(5) Promoting Diversity and Inclusion in AMIA:

- Co-Chaired the AMIA Women in AMIA (WIA) Leadership and Awards Subcommittee (2021-2023) & WIA Steering Committee (Dec 2023-present).

- Established the gender representation taskforce for leadership position survey

- Co-founded the HEROes initiative with WHO and IMIA to address global gaps in women's health and informatics' role.

- Organized AMIA and MIE panels/workshops on gender equity in informatics.

- Initiated collaborations with the DEI committee on diversity & inclusion programs, such as First Look, mentoring, leadership program, salary survey.

** Additional Collaborations:

- Liaised with the Association for Computing Machinery (ACM): served as the ACM Practitioners Board Member and co-found a podcast series promoting female leaders in AI and medicine.

- Liaised with the Society of Behavioral Science (SBM) on behavioral analytics in healthcare for precision medicine and value-based care.

- Liaised with international informatics associations (IMIA & EFMI) on consumer health, health equity, and AI governance.

Areas of Expertise

Analytics; Clinical Decision Support; Clinical Trials; Computer Science; Consumer Health; Data Science; Electronic Health Records; Engineering; Entrepreneurship; Ethics; Evaluation; Global Health; Health Equity; Human Computer Interaction; Implementation; Knowledge Discovery ;Law; Medicine; Mobile Health; Natural Language Processing; Oncology; Open Source; Patient Centered Care; Patient Safety; People and Organization Issues; Pharmaceutical Industry; Precision Medicine; Primary Care; Public Policy; Research ;Software Engineering; Standards; System Architecture; Workforce Development