CURRICULUM VITAE 2023

# ARTHUR A. DAEMMRICH

Arizona State University
Consortium for Science, Policy & Outcomes
1800 I Street NW, Suite 300
Washington, DC 20006
480.965.3025
<arthur.daemmrich@asu.edu>

# **EMPLOYMENT**

2023 – present	Arizona State University Director, Consortium for Science, Policy & Outcomes Professor of Practice, School for the Future of Innovation in Society
2015 – 2022	Smithsonian Institution Director, Lemelson Center for the Study of Invention and Innovation
2013 – 2015	University of Kansas Medical Center Associate Professor, School of Medicine
2012 – 2013	China Europe International Business School Visiting Assistant Professor of Business Administration
2007 – 2013	Harvard Business School Business, Government, and the International Economy Unit Assistant Professor of Business Administration
2002 – 2007	Science History Institute Director, Center for Contemporary History and Policy (2005-2007) Policy Analyst (2002-2005)
EDUCATION	
2002	Cornell University, Ithaca, NY Ph.D., Science and Technology Studies
1996	Cornell University, Ithaca, NY M.A., Science and Technology Studies
1991	University of Pennsylvania, Philadelphia, PA B.A., History and Sociology of Science; German Literature

### **PUBLICATIONS**

### Monograph

Pharmacopolitics: Drug Regulation in the United States and Germany (Chapel Hill: University of North Carolina Press, 2004).

#### **Edited Volumes**

Perspectives on Risk and Regulation: The FDA at 100 (with Joanna Radin) (Philadelphia: Chemical Heritage Press, 2007).

Reflections from the Frontiers, Explorations for the Future: Gordon Research Conferences, 1931-2006 (with Nancy Ryan Gray and Leah Shaper) (Philadelphia: Chemical Heritage Press, 2006).

*R&D Meets M&A: Proceedings of the 2003 Conference on Innovation and Creativity in Chemical R&D* (Philadelphia: Chemical Heritage Press, 2004).

#### **Peer-Reviewed Journal Articles**

- "Inventor-Entrepreneurs: Patents and Patent Licensing in the Early Republic," *Technology and Innovation* 22.1 (2021), 55-63. <a href="https://doi.org/10.21300/21.4.2021.6">https://doi.org/10.21300/21.4.2021.6</a>
- "Technology and Employment: Pin making and the first industrial revolution's long tail," *Medium* (25 March 2019). <a href="http://bit.ly/2ULCuw8">http://bit.ly/2ULCuw8</a>
- "Pharmaceutical Manufacturing in America: A Brief History," *Pharmacy in History* 59 (2017), 63-72.
- "Invention, Innovations Systems, and the Fourth Industrial Revolution," *Technology and Innovation* 18.4 (2017), 257-265. https://doi.org/10.21300/18.4.2017.257
- "Healthcare Reform in the United States and China: Pharmaceutical Market Implications" (with Ansuman Mohanty), *Journal of Pharmaceutical Policy and Practice* 7 (2014), 9. <a href="https://doi.org/10.1186/2052-3211-7-9">https://doi.org/10.1186/2052-3211-7-9</a>
- "U.S. Healthcare Reform and the Pharmaceutical Market: Projections from Institutional History," *Pharmaceuticals Policy and Law* 15 (2013), 137-162.
- "Legal and Political Competitiveness for Pharmaceuticals," (with Marcus Oehlrich), *Pharmaceuticals Policy and Law* 15 (2013), 93-97.
- "The Political Economy of Healthcare Reform in China: Negotiating Public and Private," *SpringerPlus* 2 (2013), 448. <a href="https://doi.org/10.1186/2193-1801-2-448">https://doi.org/10.1186/2193-1801-2-448</a>
- "Epistemic Contests and the Legitimacy of the World Trade Organization: The Brazil–USA Cotton Dispute," *Trade, Law and Development* 4 (2012), 200-240.

- "A Collaboratively-Derived Science-Policy Research Agenda" (with William Sutherland, et al.), *PLoS ONE* 7 (2012), e31824. https://doi.org/10.1371/journal.pone.0031824
- "Synthesis by Microbes or Chemists? Pharmaceutical Research and Manufacturing in the Antibiotic Era," *History and Technology* 25 (2009), 237-256.
- "Risk Frameworks and Biomonitoring: Distributed Regulation of Synthetic Chemicals in Humans," *Environmental History* 13 (2008), 684-694.
- "The Gordon Research Conferences as Scientific Infrastructure" (with Leah Shaper), *Bulletin for the History of Chemistry* 33 (2008), 94-102.
- "Pharmacovigilance and the Missing Denominator: The Changing Context of Pharmaceutical Risk Mitigation," *Pharmacy in History* 49 (2007), 61-75.
- "Invisible Monuments and the Costs of Pharmaceutical Regulation: Twenty-Five Years of Drug Lag Debate," *Pharmacy in History* 45 (2003), 3-17.
- "A Tale of Two Experts: Thalidomide and Political Engagement in the United States and West Germany," *Social History of Medicine* 15 (2002), 137-158.
- "Risk versus Risk: Tragic Choices in Drug Regulation in the United States and Germany" (with Georg Krücken), *Science as Culture* 9 (2000), 505-534.
- "The Tragedy of the Commoners: Biotechnology and its Publics" (with Ambuj Sagar and Mona Ashiya), *Nature Biotechnology* 18 (2000), 2-4.
- "The Evidence Does Not Speak for Itself: Expert Witnesses and the Organization of DNA Typing Companies," *Social Studies of Science* 28 (1998), 741-772.
  - Reprinted in: S. Silbey (ed.), Law and Science I: Epistemological, Evidentiary, and Relational Engagements (Hampshire: Ashgate, 2008), 367-398.

# **Peer-Reviewed Book Chapters**

- "Spacewar: Collaborative Coding and the Rise of Gaming Culture," in T. Bosch (ed.) "You are Not Expected to Understand This" How 26 Lines of Code Changed the World (Princeton, NJ: Princeton University Press, 2022), 31-37.
- "Dispute Settlement and Legitimacy of the World Trade Organization," in: S. Hilgartner, C. Miller, and R. Hagendijk (eds.) *Science and Democracy: Making Knowledge and Making Power in the Biosciences and Beyond* (New York: Routledge, 2015), 94-112.
- "Anticipatory Markets: Technical Standards as a Governance Tool in the Development of Biodegradable Plastics," in: S. Borrás and J. Edler (eds.) *The Governance of Socio-Technical Systems: Explaining Change* (Cheltenham, U.K.: Edward Elgar, 2015), 49-69.

- "The Welfare State as an Investment Strategy: Denmark's Flexicurity Policies," (with Thomas Bredgaard), in: A. Bardhan, D. Jaffee, and C. Kroll (eds.), *The Oxford Handbook of Offshoring and Global Employment* (Oxford: Oxford University Press, 2013), 159-179.
- "From Visible Harm to Relative Risk: Centralization and Fragmentation of Pharmacovigilance," (with Jeremy Greene), in: E. Elhauge (ed.), *The Fragmentation of U.S. Health Care: Causes and Solutions* (Oxford: Oxford University Press, 2010), 301-322.
- "BioRisk: Interleukin-2 from Laboratory to Market in the United States and Germany," in: T. Schlich and U. Tröhler (eds.), *The Risks of Medical Innovation: Risk Perception and Assessment in Historical Context* (London: Routledge, 2006), 242-261.
- "L'industria farmaceutica," in: S. Petruccioli (ed.), *Storia Della Scienza* (Rome: Istituto della Enciclopedia Italiana, 2004), v. 8, 869-874.
- "La tragédie de la thalidomide: affaires judiciaries et résponses législatives, 1959-1971," in: C. Bonah, É. Lepicard, and V. Roelcke (eds.), *La médicine expérimentale au tribunal* (Paris: Éditions des Archives Contemporaines, 2003), 291-318.
- "Regulatory Laws and Political Culture in the United States and Germany," in: J. Abraham and H.L. Smith (eds.), *Regulation of the Pharmaceutical Industry* (London: Palgrave MacMillan, 2003), 11-41.
- "Biotechnology, Competitiveness and the Regulatory State," in S. Silvia (ed.), *Reversal of Fortune?* An Assessment of the German Biotechnology Sector (Washington, D.C.: American Institute for Contemporary German Studies, 1999), 33-48.
- "Pharmaceutical Companies and Health Care Reform," in L. Baraff and N. Short (eds.), *Global Issues Guidebook* (Washington, D.C.: Pugwash, 1995), 403-407.

# **Published Cases and Teaching Notes**

- "Wichita County Health Center: Strategic Planning," Ivey Publishing case 8B16M084 (May 2016) "Wichita County Health Center: Strategic Planning (TN), Ivey Publishing teaching note 8B16M084 (May 2016).
- "Using the SWOT Framework in the Health Care Sector," Ivey Publishing note 9B16M076 (May 2016).
- "Children's Hospital Oakland: End-of-Life Dilemmas," Ivey Publishing case 9B16C007 (March 2016).
  - "Children's Hospital Oakland: End-of-Life Dilemmas (TN)," Ivey Publishing teaching note 8B16C007 (March 2016).
- "23andMe: The Business and Ethics of Personal Genetics Testing," Electronic Hallway case, University of Washington Evans School of Public Affairs, www.hallway.org (March 2015).

- "Investigating David Baltimore and Thereza Imanishi-Kari," Electronic Hallway case, University of Washington Evans School of Public Affairs, www.hallway.org (March 2015).
- "Kingstar Winning: From Electronic Medical Records to Integrated Healthcare in China," (with Wei Song), China Europe International Business School case 313-056 (June 2013).
- "Macroeconomics and the Global Business Environment," China Europe International Business School case 213-016-1 (April 2013).
- "Healthcare in China: Institutional Trajectories and Future Opportunities," China Europe International Business School case 212-058-1 (March 2013).
  - "Healthcare in China: Institutional Trajectories and Future Opportunities (TN)," China Europe International Business School teaching note 212-058-8 (March 2013).
- "Telecommunications Regulation and Coordinated Competition in Romania," (with Alex Radu and Ana Sarbu), Harvard Business School case 713-016 (August 2012).
  - "Telecommunications Regulation and Coordinated Competition in Romania (TN)," Harvard Business School teaching note 713-017 (October 2012).
- "GlaxoSmithKline in Brazil: Public-Private Vaccine Partnerships," Harvard Business School case 712-049 (June 2012).
  - "GlaxoSmithKline in Brazil: Public-Private Vaccine Partnerships (TN)," Harvard Business School teaching note 712-050 (October 2012).
- "Brazil: Leading the BRICs?" (with Aldo Musacchio), Harvard Business School case 711-024 (February 2011).
  - "Brazil: Leading the BRICs? (TN)," Harvard Business School teaching note 711-025 (March 2011).
- "Stalemate at the WTO: TRIPS, Agricultural Subsidies, and the Doha Round," Harvard Business School note 711-043 (December 2010).
- "U.S. Healthcare Reform: International Perspectives," (with Elia Cameron), Harvard Business School case 710-040 (February 2010).
  - "U.S. Healthcare Reform: Reaction to the Patient Protection and Affordable Care Act of 2010," Harvard Business School case 711-103 (April 2011).
  - "U.S. Healthcare Reform: International Perspectives (TN)," Harvard Business School teaching note 711-062 (April 2011).
- "International Lobbying and The Dow Chemical Company (A)" Harvard Business School case 710-027 (November 2009).
  - "International Lobbying and The Dow Chemical Company (B): Regulatory Reform in the USA?" Harvard Business School case 710-028 (November 2009).

- "International Lobbying and the Dow Chemical Company (A) and (B) (TN)," Harvard Business School teaching note 711-061 (March 2011).
- "Denmark: Globalization and the Welfare State," (with Benjamin Kramarz) Harvard Business School case 709-015 (March 2009).
  - "Denmark: Globalization and the Welfare State (TN)," Harvard Business School teaching note 710-007 (July 2009).
- "Targanta Therapeutics: Hitting a Moving Target," Harvard Business School case 709-002 (January 2009).
  - "Targanta Therapeutics: Hitting a Moving Target (TN)," Harvard Business School teaching note 710-006 (July 2009).
- "Arcadia Biosciences: Seeds of Change," (with Forest L. Reinhardt, and Mary Louise Shelman) Harvard Business School case 709-019 (December 2008).
  - "Arcadia Biosciences: Seeds of Change (TN)," Harvard Business School teaching note 711-042 (November 2010).
- "A Managerial Perspective on Clinical Trials," Harvard Business School note 709-033 (November 2008).

# Popular Press, Trade Journals, and New Media (2010-present)

- "Recognizing Artificial Intelligence Systems as Inventors," *Lemelson Center Blog* (18 November 2021). https://invention.si.edu/recognizing-artificial-intelligence-systems-inventors
- "Eleven Million Patents: Milestones in the History of Invention," *IP Watchdog* (11 May 2021). https://www.ipwatchdog.com/2021/05/11/eleven-million-patents-milestones-history-invention/id=133432/
- "Innovating Nurses," *Issues in Science & Technology Forum* (Spring 2021). https://issues.org/nursing-innovation-forum-de-bode/#forum-response-block 60fb363c881fa
- "Ingenious Devices: Fountains, perpetual oil lamps, and other inventions from the Islamic 'Golden Age,' "Lemelson Center Blog (2 November 2020). https://invention.si.edu/ingenious-devices
- "Inventing and Reinventing Stadiums," *Lemelson Center Blog* (23 June 2020). <a href="https://invention.si.edu/inventing-and-reinventing-stadiums">https://invention.si.edu/inventing-and-reinventing-stadiums</a>
- "One-Way Supermarket Aisles: The return of an invention from the 1910s" (with D. Lawrence Tarazano), *Lemelson Center Blog* (5 May 2020), <a href="https://invention.si.edu/one-way-supermarket-aisles">https://invention.si.edu/one-way-supermarket-aisles</a>
- "Are Robots Really Coming For Our Jobs: What we've learned from previous industrial revolutions, *Medium: Lemelson Foundation Invention Notebook* (24 February 2020). https://medium.com/invention-notebook/are-robots-really-coming-for-our-jobs-67133ddbaa9b

- "Spacewar! The First Distributed Video Game," in: "The Lines of Code that Changed Everything," *Slate* (14 October 2019). <a href="https://slate.com/technology/2019/10/consequential-computer-code-software-history.html">https://slate.com/technology/2019/10/consequential-computer-code-software-history.html</a>
- "Was the Patent Application for the Typewriter Handwritten?" *Lemelson Center Blog* (7 September 2017). <a href="http://invention.si.edu/was-patent-application-typewriter-handwritten">http://invention.si.edu/was-patent-application-typewriter-handwritten</a>
- "Innovation and Employment: Pin-making Machines and Creative Destruction," *Lemelson Center Blog* (20 July 2017). <a href="http://invention.si.edu/innovation-and-employment">http://invention.si.edu/innovation-and-employment</a>
- "AI and the Challenge of Cybersecurity," *Lemelson Center Blog* (18 April 2017). <a href="http://invention.si.edu/ai-and-challenge-cybersecurity">http://invention.si.edu/ai-and-challenge-cybersecurity</a>
- "50 Years at 16,000 percent Annual Growth," *Lemelson Center Blog* (16 September 2016). http://invention.si.edu/50-years-16000-percent-annual-growth
- "Remind me again, what is thalidomide and how did it cause so much harm?" *The Conversation* (6 December 2015). <a href="http://theconversation.com/remind-me-again-what-is-thalidomide-and-how-did-it-cause-somuch-harm-46847">http://theconversation.com/remind-me-again-what-is-thalidomide-and-how-did-it-cause-somuch-harm-46847</a>
- "Curiosity and Invention," *Lemelson Center Blog* (17 December 2015). <a href="http://invention.si.edu/curiosity-and-invention">http://invention.si.edu/curiosity-and-invention</a>
- "Why Does America Prize Creativity and Invention? History," *Zócalo Public Square* (12 November 2015). http://www.zocalopublicsquare.org/2015/11/12/why-does-america-prize-creativity-and-invention/ideas/up-for-discussion/
- "Patents and Public Goods," Lemelson Center Blog (25 September 2015). <a href="http://invention.si.edu/patents-and-public-goods">http://invention.si.edu/patents-and-public-goods</a>
- "China's Healthcare Choice: Innovation or Access?" *Forbes India* (5 June 2013). http://forbesindia.com/article/ceibs/chinas-healthcare-choice-innovation-or-access/35231/1
- "Domestic healthcare industry at crossroads," *Global Times of China* (14 May 2013). http://www.globaltimes.cn/content/781549.shtml
- "Pharmaceutical Price Controls and Innovation Incentives: A Fifty-year U.S. Debate Coming to a Head?" *Medical Progress Today* (27 October 2011).

#### **Book Reviews**

Reviewed for *Technology and Culture* 62 (2021), 1262-1264, D. Billington, Jr., *From Insight to Innovation: Engineering Ideas That Transformed America in the Twentieth Century* (Cambridge: MIT Press, 2020).

Reviewed for *Technology and Culture* 60 (2019), 1129-1131. J. Greene, *Generic: The Unbranding of Modern Medicine* (Baltimore: Johns Hopkins University Press, 2014).

Reviewed for Business History Review 90 (2016), 615-617. L. Marks, The Lock and Key of Medicine: Monoclonal Antibodies and the Transformation of Healthcare (New Haven: Yale University Press, 2015).

Reviewed for *Pharmacy in History* 56 (2014), 96-97. J. Gabriel, *Medical Monopoly: Intellectual Property Rights and the Origins of the Modern Pharmaceutical Industry* (Chicago: University of Chicago Press, 2014).

Reviewed for American Journal of Sociology 119 (2013), 586-588. A. Kinchy, Seeds, Science, and Struggle: The Global Politics of Transgenic Crops (Cambridge: MIT Press, 2012).

Reviewed for American Historical Review 113 (2008), 1494-1495. N. Rasmussen, On Speed: The Many Lives of Amphetamine (New York: NYU Press, 2008).

"Pharmaceutical Life Sentences." Review essay for *Chemical Heritage* 26 (2008), 40-41. J. Greene, *Prescribing by Numbers: Drugs and the Definition of Disease* (Baltimore: Johns Hopkins University Press, 2007).

Reviewed for *Social History of Medicine* 20 (2007), 612-613. S. Podolsky, *Pneumonia before Antibiotics: Therapeutic Evolution and Evaluation in Twentieth-Century America* (Baltimore: Johns Hopkins University Press, 2006).

Reviewed for *History and Technology* 21 (2005), 400-401. K. Granadin, N. Worbs, and S. Widmalm (eds.), *The Science – Industry Nexus: History, Policy, Implications* (Sagamore Beach: Science History Publications, 2004).

"Utopian Dreams and Regulatory Nightmares." Review essay for *Science as Culture* 14 (2005), 87-91. J. Abraham and J. Sheppard, *The Therapeutic Nightmare: The Battle Over the World's Most Controversial Sleeping Pill* (London: Earthscan Publications, 1999).

Reviewed for *Business History Review* 78 (2004), 770-72. R. Vagelos and L. Galambos, *Medicine, Science, and Merck* (New York: Cambridge University Press, 2004).

Reviewed for *Chemical Heritage* 18 (Winter 2000/2001), 26-27. C. Simon, *DDT: Kulturgeschichte einer Chemischen Verbindung* (Basel: Christoph Merian Verlag, 1999).

Reviewed for *ISIS*, 89 (1998), 120-121. W.D. Müller-Jahncke, C. Friedrich, *Geschichte der Arzneimitteltherapie* (Stuttgart: Deutscher Apotheker Verlag, 1996).

### EXHIBITION AND EDUCATION PROJECTS

*Inspiring STEM Pathways*, educational video series with accompanying classroom and at-home learning tools, role: project director, January 2023 - present. <a href="https://invention.si.edu/inspiring-stem-pathways">https://invention.si.edu/inspiring-stem-pathways</a>

*Picturing Women Inventors*, exhibition and poster series, role: project manager and curator, June 2020 - Spring 2025. <a href="https://americanhistory.si.edu/exhibitions/picturing-women-inventors">https://americanhistory.si.edu/exhibitions/picturing-women-inventors</a>

Innovations in Defense: Artificial Intelligence and the Challenge of Cybersecurity, exhibition, role: lead curator, April 2017 - September 2017. <a href="https://americanhistory.si.edu/exhibitions/innovations-defense">https://americanhistory.si.edu/exhibitions/innovations-defense</a>

### **GRANTS**

2023 - 2025 History of the Science and Technology Policy Profession: A discipline in the making? A study of the emergence and evolution of science and technology policy in the US, focused to career pathways and contested expertise. PI, Alfred P. Sloan Foundation, \$240,000.
 2023-2024 Innovation in Society Study Group. Project to analyze and identify best practices

for societal and community engagement in use-based and translational technology development. PI, **National Science Foundation**, \$300,000.

### **TEACHING**

2023 - present Arizona State University
ASU Global Launch / Cintana Network: What is Innovation? (Online 10-hour course created in spring 2023.)
PIT 503: Technology Assessment (fall 2023)

2013 - 2015 University of Kansas Medical Center

PRVM 853: Responsible Conduct of Research (2013-2015)

HP&M 830: Healthcare Management (2014-2015)

2012 - 2013 China Europe International Business School

GMGT 528: Business, Government and the International Economy

ECO2X (Executive MBA): Business, Government and the International Economy

2009 - 2013 Harvard Business School, MBA Program

Business, Government, and the International Economy (2009-2012) Healthcare in China Immersion Experience Program (2012-2013)

2008 - 2013 Harvard Business School, Executive Education

Advanced Management Program (2010)

AgriBusiness Seminar (2009)

Global Strategic Management (2011)

Kaiser Permanente Executive Leadership Program (2011)

Leadership and Strategy in Pharmaceuticals and Biotech (2008 - 2012)

Managing Healthcare Delivery (2010-2012)

2004 - 2006 University of Pennsylvania, Department of History and Sociology of Science Science and the State (2006)
Applied Methods and Public History (2004)

#### **CONFERENCES ORGANIZED**

- "Technology Policy Think Deeply and Build Things," a workshop bringing historians of technology, policymakers, and policy implementers into dialogue on key issues in technology policy. Co-organized with Jonathan Coopersmith. 7-8 September 2023.
- "Pandemic Perspectives: Stories through Collections" a 12-part series of Zoom webinars featuring panelists discussing a wide range of pandemic-related topics. Co-organized with Alexandra Lord and Peter Liebhold. 2020-2021. https://americanhistory.si.edu/pandemic-perspectives
- "Military Invention Day." Smithsonian National Museum of American History, Initiator and principal organizer, 20 May 2017, 19 May 2018, 18 May 2019.
- "Something Ventured: Risk and Failure in Invention and Innovation." Co-organized with Joyce Bedi, Eric Hintz, and Monica Smith, Smithsonian National Museum of American History, Washington, D.C., 13-15 October 2015.
- "Modern Medicines: New Perspectives in Pharmaceutical History." Co-organized with J. Greene, D. Tobbell, and G. Higby, University of Wisconsin, Madison, 17-18 October 2008.
- "Innovation Day: Warren G. Schlinger Symposium." Annual convening of 200 research, development, and technology managers and leaders. Initiator and principal organizer, 2004-2007.
- "FDA Centennial, 1906–2006: The Past, Present, and Future of Regulating Food, Drugs, Nutritional Supplements, and Medical Devices." Chemical Heritage Foundation, 16 May 2006.
- "Intellectual Property and Drug Development: A Symposium and Panel Discussion on Pharmaceutical Policy and Politics." Chemical Heritage Foundation, 13 May 2004.
- "Partnering in Industrial Biotechnology: Opportunities at a Historic Turning Point." Chemical Heritage Foundation, 11 September 2003.
- "Innovation and Creativity in Chemical R&D." Chemical Heritage Foundation, 29 April 2003.
- "Risk and Safety in Medical Innovation." Chemical Heritage Foundation, 20-22 March 2003.
- "Industry and Governance: Changing Relations among Science-Based Corporations, Government, and the Public." Chemical Heritage Foundation, 5-6 April 2002.

# **INVITED LECTURES (2015-present)**

- "Licensing the First U.S. Patent: Samuel Hopkins, Eli Cogswell, and the Inventor-Entrepreneur," 2 June 2021, U.S. Patent and Trademark Office, "History's Hand: Inventor's Mind" series. https://rev-vbrick.uspto.gov/#/videos/5db2b6de-14f6-4456-bae1-2576c8a70457
- "A History of Learning from Failure," Qatar Science and Technology Park (QSTP), 18 February 2020, Doha, Qatar.
- "Industrial Revolutions: Invention, Innovation, and the Pace of Change," 23 October 2019, Hull Street Energy LP Board Meeting dinner keynote, Washington, DC.
- "Places of Invention and Innovation," 24 July 2019, Ecosystems 2.0 dinner keynote, Portland OR.
- "Places of Invention and Innovation: Is the Future Clustered or Dispersed?" 4 June 2019, Fidelity Investments, Boston MA.
- "A History of (learning from) Failure," 3 February 2019, Zain Innovation Centre (ZINC), Kuwait.
- "A History of (learning from) Failure: Inventors, Entrepreneurs, and Consumers," 2 February 2019, Sirdab Lab, Kuwait.
- "Places of Invention and Innovation: Past, Present, and Future," 1 February 2019, Sheikh Abdullah Al Salem Cultural Centre, Kuwait.
- "Invention: A History of (Learning from) Failure," Keynote Address, National Academy of Inventors, Annual Convention, 6 April 2018.
- "A 4<sup>th</sup> Industrial Revolution? Historical Perspective on Invention and Innovation," National Defense University, Near East South Asia Center for Strategic Studies, 5 March 2018.
- "Crossing Boundaries: Innovation in Theory and in Practice," Westminster University, London, 6 April 2016.

# ACADEMIC CONFERENCE PRESENTATIONS (2015-present)

- "Invention Education: activating inventive identities through museum-based programs," World Innovation Summit for Education (WISE), Doha, Qatar, December 7-9, 2021.
- "Stadium Technologies and the Consumption of Sport," talk presented at the Society for the History of Technology Annual Conference, October 8-11, 2020.
- "China: Reforms, Pandemic, and the Outlook," 40th annual Cowen Healthcare Conference, Boston, 2 March 2020.

- "What about the Children? Chemical Testing Programs in the United States and European Union," Society for the History of Technology, Philadelphia, 26-29 October 2017.
- "Innovation Clusters: Historical Perspective," American Bar Association, International Law Section, Washington, DC, 22-24 April 2017.
- "Vulnerable Subjects, Vulnerable Knowledge: Children's Chemical Testing in the United States and European Union," Science and Democracy Network, Cambridge, MA, 25-27 June 2015.
- "Lunch Workshop: Teaching History of Medicine: Strategies for Engaging with Emerging Growth Areas," American Association for the History of Medicine, New Haven, 1-3 May 2015.

### **SELECT PROFESSIONAL ACTIVITIES**

Vice-President, American Institute of the History of Pharmacy (AIHP), 2015-2019; Board Member, 2020-2022.

Committee for Dibner Award for Excellence in Museum Exhibits, Society for the History of Technology, 2018-2021.

Board of Directors, National Academy of Inventors, 2016-2018.

Committee on Meetings and Programs, History of Science Society, 2010-2015.