# **ALEXANDER DING, MD, MS**

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#### EDUCATION/TRAINING

#### The Wharton School, University of Pennsylvania

M.B.A., 2018-2020, Major in Finance, Palmer Scholar (highest graduating academic honors)

#### Massachusetts General Hospital & Harvard Medical School

Fellowship (served as Chief Fellow) in Abdominal Imaging and Interventional Radiology, 2011-13 Harvard Business School, Course in Value-Based Health Care Delivery, Prof. Michael Porter, 2011 Residency in Diagnostic Radiology, 2008-12

# Santa Clara Valley Medical Center, Stanford University School of Medicine affiliate

Transitional Medical and Surgical Internship, 2007-08

#### University of California, San Francisco

M.D. Doctor of Medicine, Area of Concentration: Health Care Systems and the Physician-Leader, 2002-07

# University of California, Berkeley

M.S. Health & Medical Sciences, School of Public Health, 2002-05 Interdisciplinary studies in health economics, management, law, and policy

B.A. Economics, Summa Cum Laude, Phi Beta Kappa, 1998-2002

#### **LICENSURE**

American Board of Radiology, Diplomate, Vascular and Interventional Radiology, 2016-

American Board of Radiology, Diplomate, Diagnostic Radiology, 2013-

Kentucky Board of Medical Licensure, Active Medical License, 2020-

Medical Board of California, Active Medical License, 2013-

Massachusetts Board of Registration in Medicine, Active Medical License, 2009-

#### CLINICAL EXPERIENCE

#### California Advanced Imaging Medical Associates, San Mateo & Burlingame, CA, 2013-

Managing Partner & Attending Radiologist: Practice diagnostic and interventional radiology in a private clinical practice providing services at San Mateo County Medical Center, Mills Medical Center, and Peninsula Health Center. Focused on providing exceptional patient care with a focus on emergency and cancer diagnostic imaging, and minimally invasive imageguided procedures. Developed the interventional oncology business including bringing to the community capabilities in alcohol, microwave, cryo-, and radiofrequency ablation; chemo-, and radioembolization treatments for treatment of tumors without surgery. Member of the corporate board of directors and its executive committee as corporate treasurer. Lead the practice on contract negotiations for clinical services, fiscal budgeting and investments, transition in nighthawk services. Managed department physician staff, quality, capital planning, staff training and education, and COVID operations.

Mills-Peninsula Health Services, Chief of Radiology and Medical Director of Imaging, Department of Radiology, 2018-

Member, Professional Staff Executive Committee, 2018-

Clinical Lead in Interventional Radiology, 2017-18

Radiation Safety Officer, 2015-18

Sutter Health, Chair, Clinical Decision Support and Appropriateness Criteria Committee, 2016

San Mateo Medical Center, Vice-Chief of Staff, 2015-16

Chair, Quality Improvement Committee 2015-16

Voting Member, Board of Directors, San Mateo Medical Center 2015-16, 18

Member, Medical Executive Committee, 2014-

# **ACADEMIC APPOINTMENTS**

Volunteer Clinical Faculty in Radiology and Biomedical Imaging, UCSF School of Medicine, 2014-Graduate Assistant, Harvard Medical School, 2012-13

Clinical Fellow in Radiology, Harvard Medical School, 2008-12

Resident Physician Affiliate in Medicine, Stanford University, 2007-08

# MILITARY SERVICE

Lieutenant Commander (O-4), United States Navy Reserve, Medical Corps, 2013-19 Lieutenant (O-3), United States Navy Reserve, Medical Corps, 2009-13

#### PROFESSIONAL LEADERSHIP

#### **American Medical Association**

Councilor, Council on Science and Public Health, 2016-; Member, Executive Committee, 2018-; Chair-elect, 2020 Delegate, House of Delegates, 2003-11, 14-

# Board Member, Board of Trustees, 2011-13

Elected by the House of Delegates to the Board of a 230,000-member national professional and advocacy organization, setting professional standards for health care and medicine. Annual budget of >\$300 mm/yr and 1000+ employees. Member of the membership committee: reversed a decades long declining membership, now in its 6<sup>th</sup> year of continued growth. Worked with White House Office of Health Reform on the implementation of the Affordable Care Act. Served as first liaison to World Medical Association's Junior Doctor Network. Media spokesperson on multiple public health and science issues. Provided leadership in the development of a new focused strategic plan with major organizational restructuring.

Board Member, Board of Directors, AMA Political Action Committee (AMPAC), 2008-10 Councilor, Council on Legislation, 2006-07

#### **California Medical Association**

Councilor, Council on Legislation, 2015-

Board Member, Board of Directors, CALPAC, 2007-08, 2015-

Delegate, House of Delegates, 2002-08, 2013-

Councilor, Council on Science and Public Health, 2015-16

Member, Reference Committee on Health Care Finance and System Reform, 2003-04

### **San Mateo County Medical Association**

President, 2017-18

Local professional organization with 1000+ physician members and budget of \$1mm/yr. Led a turnaround of the association. Led the development of a strategic plan and defining of a value proposition. Brought attention to and started reversal of a long-term structural budget deficit. Chair of the selection committee for a new executive director. *President-elect*, 2016-17

Secretary-Treasurer, 2015-16

Board Member, Board of Directors, 2013-

#### **Massachusetts Medical Society**

Board Member, Board of Trustees, 2010-11

Delegate, House of Delegates, 2008-13

Chair, Ad Hoc Committee on the Formation of a Medical Reserve Corps, 2010-11

Member, The New England Journal of Medicine, Publications Oversight Committee, 2010-11

Chair, Resident and Fellow Section Governing Council, 2009-10

Board Member, Board of Trustees, Boston Medical Library, 2009-10

#### American College of Radiology

Member, Data Science Institute, Radiology Business Use AI/ML Subpanel, 2020-Member, Radiology Integrated Care Network, Commission on Economics, 2011-

Member, Appropriateness Criteria Committee, Gastrointestinal Imaging, 2009-10

#### **INDUSTRY EXPERIENCE**

Google, Brain Team, (consultancy staffed via agency Adecco and Advanced Clinical) Mountain View, CA, 2017-19

Medical Specialist & Clinical Lead: Applied artificial intelligence and deep learning to medical imaging. Lead development of training materials. Created and taught medical knowledge training modules to engineers and product managers. Recruited team of physician radiologists and created on-boarding testing and training. Provided development feedback on user interfaces and labeling schema of radiology reports and images. Designed performance measures and data conflict adjudication. Create leads to partner with academia and professional associations. Labeled studies for machine learning algorithm training.

Contributed to Ardila D, Kiraly ÅP, Bharadwaj S, et al. End-to-end lung cancer screening with three-dimensional deep learning on low-dose chest computed tomography. *Nature Medicine* 2019. Story in NY Times "AI Took a Test to Detect Lung Cancer. It Got an A" May 20, 2019.

Google, Project MD, (consultancy staffed via agency Upwork) remote, 2014-17

Medical Contributor: Clinical content expertise provider for medical search curation.

# Parade Ventures, Medicus Ventures, Hunniwell Lake Ventures, and RedCrow Ventures, 2019-

Portfolio and medical adviser to various venture capital funds.

# Genetesis, Cincinnati, OH, 2017-

Scientific Advisor: Development stage imaging technology and software company based on magnetocardiography. Utilizes highly sensitive magnetic sensors with artificial intelligence enabled software for predictive analysis of cardiac activity. Technology deployed for the evaluation of chest pain in the emergency setting. Raising Series B. Provide clinical, medical, regulatory, and strategic guidance.

#### Doximity, San Mateo, CA, 2011-

Member, Medical Advisory Board: Founding advisory board member. Company has built the largest physician professional network. Provided feedback and advised on physician facing products. Pitched growth plans for increased physician engagement products and stickiness of network. Advised on opportunities for monetization.

#### **Eko Devices**, Berkeley, CA, 2015-2018

Independent Board Member, Board of Directors: FDA-cleared digital stethoscope with built-in EKG capabilities. Raised Series A. Led strategic entry into the telehealth space. Shaped business model for reimbursement strategy and formed clinician and health system relationships for clinical validation.

#### VideoMedicine, Chicago, IL, 2014-16

Founding Board Member, Board of Directors & Chief Medical Officer: Telemedicine videochat app and web service for connecting patients with clinicians across the country with a broad spectrum of clinical specialties. Portfolio of responsibilities included HIPAA, licensure, and regulatory compliance; physician recruitment, physician credentialing and on-boarding. On-boarded more than 100 clinicians. Provided strategic insight to move from the direct-to-consumer to institutional business model. Made inroads for reimbursement as member of the AMA's CPT Panel for Telehealth. Merged with Salus Telehealth.

#### AIM Specialty Health, an Anthem Company, Chicago, IL, 2013-16

Consultant: Radiology benefits manager and utilization management platform for payer pre-authorization providing services to all major health insurance companies. Advised a transition from a call-center and fax-based system to an electronic platform from a clinical and workflow perspective. Authored, revised, and provided oversight of clinical guidelines for approval of advanced imaging tests in body imaging.

# **Optum,** a UnitedHealth Group Company, Minneapolis, MN, 2013-14

Member, Physician Advisory Board: Health services and technology company. Proffered clinical physician perspective, medical profession representation, and deliberated high level industry trends in advising strategic business decisions. Discussions used for strategic determination of company acquisitions or areas of strategic development, including: medical practices, and solutions for reducing hospital readmissions, value-based care, care coordination, and care analytics.

# Massachusetts General Hospital Imaging, Boston, MA, 2011-13

Fellow, Business Development: Managed department efforts to acquire an imaging practice at Nantucket Cottage Hospital, including: authoring service agreement portions of the contract, evaluation and acquisition of imaging equipment, and arrangement of staffing services. Authored business plan, created financial model, and evaluated venues for starting an outpatient interventional radiology procedure clinic. Revived dormant consulting group including strategic refocusing and development of new clients. Produced product line for MGH low radiation dose CT protocols to be monetized and licensed to various vendors. Sat on the business development board of the department focusing on strategic business efforts at various outside imaging centers and development of new contracts for imaging services.

#### Physicians Insurance Agency of Massachusetts, Boston, MA, 2008-13

Board Member, Board of Directors: Insurance provider to physicians and their practices in Greater New England. Navigated market threats of increased consolidation of providers to provide group discounts, expanded products including financial services, and downside insurance from financial restructuring into risk-bearing clinical models, brought on by the Affordable Care Act.

# The Economist Intelligence Unit, Research Arm of The Economist, remote, 2004-09

Field Correspondent, San Francisco Bay Area: Collected and analyzed economic data related to costs of living and business operations in the SF Bay. Contributions merged with other global contributors to formulate worldwide business information publications. Projects included: estimating the cost of start-up or moving an IT firm to the region, calculating labor costs of the regional pharma industry, and monitoring changes to cost of living standards.

#### Goldman Sachs & Co., San Francisco, CA, 2001

Summer Financial Analyst, Investment Management Services: Identified and prospected ultra-high net worth individuals, with a focus on \$250+ million in asset wealth. Created pitch presentations to potential clients, including drafting a successful response to a Request for Proposal (RFP) worth \$600 million in assets. Researched and recommended asset allocation models and applied them toward clients' portfolios. Performed analyses on corporate equities, industry sectors, and macroeconomies to make recommendations to superiors or clients.

# **ACADEMIA EXPERIENCE**

# **PUBLICATIONS**

Solino-Fernandez D, **Ding A**, Kaiser EB, Ding EL. Willingness to adopt wearable devices with behavioral and economic incentives by health insurance wellness programs: results of a US cross-sectional survey with multiple consumer health vignettes. BMC Public Health 2019; 19:1649.

Majkowska A, Mittal S, Steiner DF, Reicher JJ, McKinney SM, Duggan G, Eswaran K, Chen P-H C, Liu Y, Kalidindi SR, Ding A, Corrado GS, Tse D, Shetty S for the Google Health AI team. Chest Radiograph Interpretation Using Deep Learning Models: Assessment Using Radiologist Adjudicated Reference Standards and Population-Adjusted Evaluation. Radiology 2019; 00:1-11. Featured in February 2020 Podcast pubs.rsna.org/do/10.1148/radiol.294.2.1.podcast/abs/

- Durand DJ, Robertson CT, Agrawal G, Duczak RR, Krupinski E, Itri J, Fotenos AA, Savoie B, **Ding A**, Lewin JS. Expert witness blinding strategies to mitigate bias in radiology malpractice cases: A comprehensive review of the relevant scientific, professional, and legal literature. Journal of the American College of Radiology 2014; 11(9):868-73.
- Hirsch JA, Rosman DA, Liu RW, **Ding A**, Manchikanti L. Sustainable growth rate 2013: time for definitive intervention. Journal of Neurointerventional Surgery 2013; 5(4):382-6.
- **Ding A**, Kulkarni N, Fintelmann FJ, and Saini SS. Liver: Normal Anatomy and Examination Techniques. In: Gore and Levine (Eds). Textbook of Gastrointestinal Radiology. 4th ed. Saunders-Elsevier; 2014.
- **Ding A.** The History of Healthcare in the United States, pre-1965. In: Sethi M and Frist WH (Eds). An Introduction to Health Policy: A Primer for Physicians and Medical Students. 1st ed. New York, NY: Springer; 2013, pp 3-13.
- Sarwar A, **Ding A**, and Slanetz PJ. Getting involved in organized medicine a remedy for the current health care crisis? Academic Radiology 2013; 20(4): 519-20.
- **Ding A**, Kulkarni N, and Saini SS. Techniques in Hepatic CT Imaging. In: Hamm B and Ros PR (Eds). Abdominal Imaging. 1st ed. Berlin, Germany: Springer; 2013, pp 915-924.
- **Ding A.** Politics and Legislative Advocacy. In: Urman RD and Ehrenfeld JM (Eds). Physicians' Pathways to Non-Traditional Careers and Leadership Opportunities. 1st ed. New York, NY: Springer; 2012, pp 211-218
- Ding A, Pandharipande P. Economic Impact of Incidental Radiographic Findings. Issue on Incidentalomas. Radiological Clinics of North America 2011; 49(2):257-265.
- Ding A, Abujudeh H, Novelline RA. Diagnosing Cervical Spine Instability: Role of the Post-CT Out-of-Collar Lateral Radiograph. Journal of Emergency Medicine 2011; 40(5):518-521.
- Smith-Bindman R, McCulloch CE, **Ding A**, Quale C, Chu P. Diagnostic imaging rates for head injury in the ED and states' medical malpractice tort reform. American Journal of Emergency Medicine 2011; 29(6):656-664.
- Rosen MP, **Ding A**, Blake MA, et al. ACR Appropriateness Criteria Right Lower Quadrant Abdominal Pain Suspected Appendicitis. Journal of the American College of Radiology 2011; 11(8):749-755.
- **Ding A** and Mueller PR. Scope of Academic Educational Missions, Beneficiaries, and Estimated Effort. Journal of the American College of Radiology 2010; 4(7):290-293.
- **Ding A,** Saini SS, Berndt ER. Radiologist Productivity: What, Why, and How. Journal of the American College of Radiology 2009; 12(6):824-827.
- **Ding A**, Sharp JW. On the Importance of Organized Medicine. Journal of the American College of Radiology 2009; 10(6):726-727.
- **Ding A** as member of Legislative Action Committee. Report on Direct to Consumer Advertising, prepared for the American Medical Association Resident and Fellow Section, June 2009.
- Sethi MK, Aseltine RH, Ehrenfeld JM, Kirshenbaum K, **Ding A**, *et al.* The Prevalence and Cost of Defensive Medicine in Massachusetts: A Survey of Physicians. Published online at www.mms.org; press release 11/17/08.
- **Ding A** on behalf of the Legislative Action Committee. Report on Defensive Medicine, prepared for the American Medical Association Resident and Fellow Section, June 2008.
- **Ding A,** Hann M, Sibbald B. Profile of English salaried general practitioners: labour mobility and practice performance. British Journal of General Practice 2008; 58(546):20-25. with response to editorial and letters in BJGP 2008; 58(548): 204.
- Ding A. Curbing Adolescent Smoking: A Review of the Effectiveness of Various Policies. Yale Journal of Biology and Medicine. 2005; 78:37-44.
- Ding A. Youth Are More Sensitive to Price Changes in Cigarettes than Adults. Yale Journal of Biology and Medicine. 2003;
- Widge AS, Christensen AR, **Ding A** et al. Report of the Task Force on Medical Student Debt, prepared for the American Medical Association Medical Student Section, Dec 2003.

# LECTURES/TESTIMONY

- Ding A, A Meyers, M De, S Gandhi. "Outside of the Box: Physician Innovators and Entrepreneurs." American Medical Association Interim Business Meeting. Honolulu, HI Nov 11, 2017. Moderator of national CME lecture and discussion.
- **Ding A,** FC Stanford, EA Eiting. "Telemedicine: Improving Patient Care and Health Outcomes." American Medical Association Interim Business Meeting. Honolulu, HI Nov 11, 2017. Moderator of national CME lecture and discussion.
- **Ding A.** "A Call for Physician and Radiologist Leadership." American College of Radiology, Resident and Fellow Section, Annual Meeting and Chapter Leadership Conference. May 5, 2013. National lecture to junior radiologists.
- **Ding A.** "A Call for Physician and Radiologist Leadership." American College of Radiology/Massachusetts General Hospital Health Policy Power Hour. January 30, 2013. Local lecture to radiologists.
- **Ding A.** "Leadership and the Acceleration of Change in Medical Education." Boston University, School of Medicine. January 17, 2013. Local lecture to medical students.
- **Ding A.** "The Imperative for Young Physician Leadership." University of North Dakota, School of Medicine Grand Rounds. October 12, 2012. Local lecture to medical students, residents, and young attending physicians.
- **Ding A.** "The Imperative for Physician Leadership." North Dakota Medical Association Annual Meeting. October 11, 2012. Statewide lecture to medical society.
- **Ding A.** "The Changing Health System and You." Essex District Medical Society Annual Meeting. March 7, 2012. Local lecture to medical society on physician leadership.
- Ding A and VanLare J. "Reforming Health Care: Perspective from Future Physicians." American Medical Association Virtual Mentor Journal of Ethics. November 2011. National podcast interview. Available at <a href="http://www.soundprescribing.org/podcast/ethics-talk-reforming-health-care.mp3">http://www.soundprescribing.org/podcast/ethics-talk-reforming-health-care.mp3</a>.
- **Ding A**. "In Sickness and In Health: The Current State of Healthcare Reform." New Century Chautauqua, Castro Valley, CA, August 13, 2011. National lecture to leadership group.

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- Ding A and Schmitz MD. "Radiology and the American Medical Association." American College of Radiology Annual Meeting and Chapter Leadership Meeting, Resident and Fellow Section. May 14, 2011. National lecture to radiology
- Ding A. Massachusetts Joint Senate and House Committee on Public Health Hearing, Senate Bill 845 "An Act Relative to Safe Work Hours for Physicians in Training and Protection of Patients," Boston, MA. November 3, 2009. Statewide policy testimony in opposition of state regulation of resident physician work hours.

Mueller PR, Ding A. "Scope of Academic Educational Missions, Beneficiaries, and Estimated Effort." American College of Radiology Intersociety Meeting, Banff, Canada, July 31, 2009. International lecture to academic radiologists.

Ding A. "Parental Management of Asthma." Breathe California, San Jose, CA, May 6, 2008. Local lecture to parent support

Ding A. "Health Care Financing & Systems." Santa Clara Valley Medical Center, Department of Medicine, San Jose, CA, January 17, 2008. Local lecture to internal medicine resident physicians.

Ding A and Rodriguez N. "Solving the U.S. Health Crisis." New Century Chautauqua, Point Reyes, CA, August 4, 2007. National lecture to leadership group.

Ding, A. US Department of Education, Higher Education Act, Negotiated Rulemaking Regional Hearing, Berkeley, CA. September 19, 2006. National policy testimony on medical student debt.

Ding A. "Do rates of diagnostic imaging for head trauma vary by the medical malpractice environment?" UCSF Imaging Research Symposium, San Francisco, CA, March 24, 2005. Local oral presentation to imaging researchers and radiologists.

Ding A. "The Liabilities of our Medical Liability System." American Medical Association Medical Student Section Region 1 Meeting, Las Vegas, January 15, 2005. Regional keynote lecture to medical students.

#### LAY PRESS

Bryant, Meg. "Evidence lacking on benefits of diabetes self-management apps, AHRQ says." Healthcare Dive 11 May 2018.

Bryant, Meg. "Providers forge partnerships to leverage data for better patient experience." HealthcareDive 15 Dec 2017. Quote.

Bryant, Meg. "New alliance aims to advance digital therapeutics." HealthcareDive 27 Oct 2017. Quote.

Bryant, Meg. "Outcome Health looks to scale up with new chief engineer post." *HealthcareDive* 30 Aug 2017. Quote. Bryant, Meg. "What's needed to scale up digital health in the clinical provider space." *HealthcareDive* 26 July 2017. Quotes and interview.

Pennic, Jasmine. "Eko Duo Receives FDA Clearance to Market Combined Digital Stethoscope/ECG Smart Device." HIT Consultant 7 June 2017. Quote.

The Times-Picayune Editorial Board. "Don't block the sunblock: Editorial." New Orleans Times-Picayune 28 April 2017.

Wilson, Matt. "Tino welcomes four more to school's hall of fame." San Jose Mercury News 28 May 2014. Profile.

Page, Leigh. "Are Doctors Being Exploited?" Medscape.com 13 Feb 2014. Quote.

Sifferlin, Alexandra. "Let the Sun(screen) In." *Time.com* 19 August 2013. Quote.

"AMA supports ban on marketing energy drinks to kids." Reuters 19 June 2013. Quote.

Carroll, Linda. "AMA supports use of sunscreen in schools." *Today.com* 19 June 2013. Quote.

Armstrong, Drew. "Doctors Call for Halt to Energy Drink Ads to U.S. Youths." Bloomberg 18 June 2013. Quote.

"U.S. doctor group supports ban on marketing energy drinks to kids." *Reuters* 18 June 2013.

"AMA backs tax on soda to fight obesity." Chicago Tribune 20 June 2012. Quote.

Jameson, Mimi. "Don't pop that soda: AMA tackles sugary drinks' role in obesity." Orlando Sentinel 20 June 2012. Quote.

"American Medical Association wants obesity education taught in schools, soda taxes." CBS News Online 20 June 2012.

Weir, William. "Artificial Lighting Poses Health Risks, American Medical Association Asserts." The Hartford Courant 20 June 2012. Quote.

MacVean, Mary. "Soda taxes endorsed by AMA as a way to fight obesity." Los Angeles Times 20 June 2012. Quote.

Steenhuysen, Julie. "Soda taxes should be used to fight obesity- US doctors." Reuters 20 June 2012. Quote.

Tanner, Lindsey. "AMA supports requiring obesity education for kids." The Associated Press 20 June 2012. Quote.

#### POSTERS/ABSTRACTS

Sutphin PD, Ding A, Toomay SM, Pillai AK, Kalva SP, Hsu SL. Interventional radiologist billing practices to Medicare: procedures performed and geographic variation. Society of Interventional Radiology, Atlanta, G, Mar 1-5, 2015. National health services research abstract.

Hwang CH, Ding A, Charon M. "NSAID-Induced Acute Renal Failure and Fluid Retention: Over-the-Counter Overload." Society of General Internal Medicine, Tempe, AZ, October 3, 2008. Regional clinical abstract and poster.

Ding A, Hann RM, Sibbald B. "Salaried doctors: a good thing?" UCSF Area of Concentrations Symposium, San Francisco, May 2, 2007. Local poster.

El-Sayed IH, Ding A, Wang EY, et al. "Outcomes of Esthesioneuroblastoma: The UCSF Experience 1971-2001." American Head & Neck Society, Chicago, August 18-19, 2006. National poster.

Ding A, Yee J. "Performance Characteristics of Contrast-Enhanced CT Colonography." UCSF Dean's Summer Research Poster Session, San Francisco, January 12, 2005. Local poster.

Ding A, Quale C, Chu P, Smith-Bindman R. "Do rates of diagnostic imaging in emergency department patients for head trauma vary among states by the type of medical malpractice environment?" Bay Area Clinical Research Symposium, San Francisco, October 22, 2004. Regional poster.

#### ACADEMIC JOURNALS REVIEWED

Journal of Medical Systems – associate editor, 2013-2018 Radiology – ad hoc Emergency Radiology – ad hoc Preventative Medicine – ad hoc British Journal of General Practice – ad hoc Libertas Academica – ad hoc

#### RESEARCH EXPERIENCE

# Massachusetts General Hospital, Institute for Technology Assessment, Boston, MA, 2008-10

Research Fellow: Investigated and quantified the value of health care dollars spent on cancer care and identified interventions that improve the value of monies spent. Examined trends in health outcomes among patients with lung, colorectal and breast cancer. Determined the annual and lifetime costs of cancer screening, prevention and treatment. Estimated the cost effectiveness and value of interventions to inform a national project redefining and recalculating national expenditures of health care dollars.

# University of Manchester, National Primary Care Research & Development Centre, Manchester, UK, 2007

Research Fellow: Studied the demographics of salaried versus proprietor general medical practitioners; specifically, changes following recent changes in policy in the British National Health Services. Investigated the association of the density of hired physicians to the outcome of quality of care provided patients under the Pay-for-Performance scheme in the UK. Processed all analyses on a STATA system.

### UCSF, Radiological Outcomes Research Laboratory, San Francisco, CA, 2003-05

Project Co-Principal Investigator: Explored alterations in physician behavior as a result of medical malpractice fears, including effects of defensive medicine and medical errors. Considered federal alternative systems of accountability and liability based on various state and international models. Investigated the association between MICRA-style tort reforms and the practice of defensive medicine using Medicare data on a SAS system.

# UCSF, Veterans Affairs Medical Center, 3D Imaging Laboratory, San Francisco, CA, 2004

Research Associate: Studied the sensitivity and specificity of CT colonography i.e. virtual colonoscopy, as an alternative screening procedure versus that of optical colonoscopy. Studies included whether IV contrast enhanced identification of lesions, and whether ingested barium-tagged stool increased distinction between stool and polyps. Experience with 2D CT abdominal colon readings and various 3D workstations. Contributed to a Virtual Colonoscopy textbook intended to teach interpretation techniques to radiologists. Taught radiologists use of 3D workstation use at a national CME conference on Virtual Colonoscopy.

#### **TEACHING EXPERIENCE:**

# University of California, Berkeley, Depts. of Economics & Molecular and Cell Biology, Berkeley, CA, 2002-04

Graduate Student Instructor: Prepared course materials, taught, and cumulatively evaluated 300+ undergraduate students. Lectured to a 600-student lecture hall on the topic of introductory game theory as applied in economics and political science. Consistently received high accolades from students regarding effectiveness as a teacher; awarded Outstanding Graduate Student Instructor Teaching Award.

Fall 2002: Economics 100A, Intermediate Microeconomic Theory & Analysis (Prof. Ravi Bhandari)

Spring 2003: Economics 1, Introductory Economics (Prof. Kenneth Train)

Fall 2003: Molecular & Cell Biology 62, Drugs and the Brain (Prof. David Presti)

Spring 2004: Molecular & Cell Biology 61, Brain, Mind and Behavior (Prof. David Presti)

#### COMMUNITY WORK

# Breathe California, San Francisco, CA, 2014-19

Board Member, Board of Directors: Local non-profit organization focused on clean air and lung disease. Provided strategic direction to a financially struggling organization in developing and executing on a financially sustainable budget and plan. Explored strategic mergers, partnerships, and organizational restructuring for long term viability and success.

#### The World Health Organization, Geneva, Switzerland, 2008

Physician Volunteer, Tobacco Free Initiative, National Capacity: Researched global organizations and their tobacco control capacities and resources, to initiate the formation of a Global Consortium on Tobacco Cessation. Authored several internal WHO reports, including a situational analysis on global tobacco cessation resources, created a political map of potential partners for a planned summit meeting, and drafted the protocol and organizational structure of the planned Consortium.

#### Suitcase Clinic, Medical Division, Berkeley, CA, 2002-04

Strategic Development Coordinator: Took clinical histories and performed physical examinations at a medical clinic focused on serving the acutely sick homeless and indigent population of the surrounding community. Presented patient cases to community physicians to assess patients' pathologies and prescribe treatment protocols. Took on a coordinator role in Spring 2003, focusing on strategic planning efforts with other community health centers. Established a partnership with a local community center to provide malpractice coverage for volunteer physicians, acceptance of clinic referrals for long-term primary care, and development of economies of scale for drug procurement.

#### ALEXANDER DING

#### HONORS/AWARDS/GRANTS

Poet and Quants, 100 Best and Brightest Executive MBAs: Class of 2020

MedTech's 40 Under 40, 2017

Cupertino High School, Hall of Fame Inductee, 2014

Peter E. Haas Public Service Award, Nominee, 2013

White House Fellow, Regional Finalist, 2013

American Medical Association Foundation, Leadership in Medicine Award, 2009

UC Berkeley, Order of the Golden Bear, Fellow, 2005

UC Berkeley, Outstanding Graduate Student Instructor Teaching Award, 2004

UCSF-UC Berkeley, Joint Medical Program Research Grant, 2004

UCSF, Genentech Foundation & Dean's Summer Research Fellow, 2004

UC Berkeley, University Medal Candidate (Candidate for University Valedictorian), 2002

UC Berkeley, Emerging Leader Alumni Scholarship, 2000-2002

UC Berkeley, Chancellor's Scholar, 1998-2002

UC Berkeley, Alumni Leadership Scholar, 1998-2000

Santa Clara County, Youth Hall of Fame Inductee, 1998

Service Above Self Award, City of Cupertino Kiwanis Club, 1998

Bank of America Award for Outstanding Achievement in Liberal Arts, 1998

Edward Teller Award for Excellence in Mathematics and the Sciences, United States Navy, 1997

# **PROFESSIONAL MEMBERSHIPS:**

American Medical Association | California Medical Association | San Mateo County Medical Association Radiological Society of North America | American College of Radiology | California Radiological Society