

BIOGRAPHICAL SKETCH

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NAME: Kaelber, David Charles, M.D., Ph.D., M.P.H., M.S.

eRA COMMONS USER NAME (credential, e.g., agency login): DKAELBER

POSITION TITLE: Chief Medical Informatics Officer and Vice-President of Health Informatics
Director, Center for Clinical Informatics Research and Education
Director, Center for Health Informatics and Patient Engagement
Professor of Internal Medicine, Pediatrics, Epidemiology, and Biostatistics

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

INSTITUTION AND LOCATION	DEGREE	Completion Date	FIELD OF STUDY
	(if applicable)	MM/YYYY	
Duke University	B.M.E.	1991	Biomedical/Electrical Engineering
Case Western Reserve University	M.S.	1994	Biomedical Engineering
Case Western Reserve University	Ph.D.	1999	Biomedical Engineering
Case Western Reserve University	M.D.	2000	Medicine
Case Western Reserve University/MetroHealth (PGY1-PGY4)	---	2004	Internal Medicine-Pediatrics
Case Western Reserve University/MetroHealth (Chief Resident)	---	2005	Internal Medicine-Pediatrics
Partners Healthcare	---	2008	Clinical Informatics
Harvard University	M.P.H.	2008	Clinical Effectiveness

A. Personal Statement

David C Kaelber, MD, PhD, MPH, is Board Certified in Clinical Informatics, the Chief Medical Informatics Officer of the MetroHealth System, a practicing internist and pediatrician, and a Professor of Internal Medicine, Pediatrics, Epidemiology, and Biostatistics at Case Western Reserve University. He also directs the MetroHealth System's Center for Clinical Informatics Research and Education and has been Site Principal Investigator and Informatics Lead for Case Western Reserve University's Clinical and Translational Science Center Biomedical Research Information Management Core for the last 9 years. Dr. Kaelber's research focuses on clinical informatics/clinical research informatics, specifically electronic health records (EHR), personal health records, clinical decision support, telemedicine, and using EHRs for chronic disease detection and management.

B. Positions and Honors**Positions and Employment**

1990-1991	National Science Foundation/Engineering Research Center Fellow, Department of Biomedical Engineering, Duke University, Durham NC
1991-1999	Research Fellow, Department of Biomedical Engineering, Case Western Reserve University, Cleveland OH
2000-2004	Resident Physician, Internal Medicine and Pediatrics Residency, The MetroHealth System, Case Western Reserve University, Cleveland OH
2004-2005	Senior Instructor and Chief Resident, Internal Medicine and Pediatrics Department, The MetroHealth System, Case Western Reserve University, Cleveland OH
2005-2008	Senior Instructor, Assistant Program Director, Medical Director, and Attending Physician, Internal Medicine and Pediatrics Department, The MetroHealth System, Case Western Reserve University, Cleveland OH
2005-2008	Medical Informatics Fellow, Center for Information Technology Leadership, Partners Healthcare, Harvard University, Boston OH

2008-2015 Chief Medical Informatics Officer, The MetroHealth System, Cleveland OH
 2009-2010 Assistant Professor, Research Director for the Center for Internal Medicine and Pediatrics, Chief Medical Informatics Officer, and Attending Physician, Internal Medicine and Pediatrics Department, The MetroHealth System, Case Western Reserve University, Cleveland OH
 2009- Senior Scholar, Center for Healthcare Research and Policy, The MetroHealth System, Case Western Reserve University, Cleveland OH
 2009- Affiliated Faculty, the Case Center for Reducing Health Disparities, Case Western Reserve University, Cleveland OH
 2011-2015 Associate Professor of Internal Medicine, Pediatrics, Epidemiology, and Biostatistics and Attending Physician, Internal Medicine and Pediatrics Department, The MetroHealth System, Case Western Reserve University, Cleveland OH
 2011- Director, Center for Clinical Informatics Research and Education. The MetroHealth System.
 2014- Chief Medical Informatics Officer/ Vice-President of Health Informatics, The MetroHealth System.
 2015- Professor of Internal Medicine, Pediatrics, Epidemiology, and Biostatistics and Attending Physician, Internal Medicine and Pediatrics Department, The MetroHealth System, Case Western Reserve University, Cleveland OH

Other Experience and Professional Membership (selected)

2000-2001 Board of Directors. Web Hosting Headquarters.
 2001-2002 National Med-Peds Residents' Association Treasurer
 2001-2003 MetroHealth System House Officers' Association Treasurer
 2001-2004 American Academy of Pediatrics District V Resident Coordinator
 2001-2006 MetroHealth System Personal Digital Assistant (PDA) Library Users Group
 2001-2016 National Med-Peds Residents' Association Webmaster
 2002-2003 National Med-Peds Residents' Association President
 2003-2004 National Med-Peds Residents' Association President Emeritus
 2003-2005 American Academy of Pediatrics Clinical Case Presentation Program Founder and Chair
 2003-2005 MetroHealth System House Officers' Association President
 2004-2016 National Med-Peds Residents' Association Advisor
 2005-2007 American Medical Association eMedicine Advisory Committee
 2005-2008 Journal of the American Medical Informatics Association (JAMIA) Editorial Board
 2005-2012 American Academy of Pediatrics Med-Peds Section Executive Committee
 2005-2011 American Medical Informatics Association Student Working Group Executive Committee
 2008 American Medical Informatics Association Student Working Group Chair-Elect
 2009 American Medical Informatics Association Student Working Group Chair
 2010-2011 American Medical Informatics Association Board of Directors
 2010-2011 American Medical Informatics Association Scientific Program Committee
 2012 State of Ohio e-Prescribing Task Force
 2013-2015 Wolters-Kluwer UpToDate® Customer Advisory Board
 2013 Data Aggregation for Research Governance Committee (Epic Corporation)
 2013 Department of Health and Human Services/Urban Institute Electronic Health Record Technical Advisory Panel
 2013 Centers for Medicare and Medicaid/Yale New Haven Health Services Corporation/Center for Outcomes Research and Evaluation Electronic Data Model Technical Advisory Panel
 2013-present Data Aggregation for Research Governing Council (Epic Corporation)
 2014-present Board Certified in Clinical Informatics
 2014-present American Academy of Pediatrics subcommittee on the evaluation and management of high blood pressure in childhood (co-chair)
 2014-present CareSource of Ohio Board of Directors
 2014-present CareEverywhere Governing Council (Epic Corporation)

Honors (selected)

1990 National Science Foundation/Engineering Research Center Fellow (Duke University)
 1991 National Institutes of Health (NIH) Training Grant
 2001 Pediatric Leadership Award (Department of Pediatrics, MetroHealth System)
 2002 The Paul W Ambrose Resident Physician Leadership Symposium

2002	Pediatric Leadership Alliance (American Academy of Pediatrics Young Leaders)
2002	Gary Onady, MD, PhD Award (outstanding Med-Peds Resident at the national or regional level)
2004	Alpha Omega Alpha
2004	MetroHealth Medical Center Research Day (1 st Place)
2004	Pediatric Research Award (1 st Place)
2004	Senior Resident Teaching Award
2004	Pfizer Scholar in Internal Medicine
2004	Rajiv M. Reddy M.D. Academic Achievement Award
2006	Fellow of the American Academy of Pediatrics
2006	Excellence in Mentorship, Commitment and Outstanding Leadership Award (MetroHealth System)
2006	Scholars in Teaching Award (Case Western Reserve University)
2007	Ruth L Kirchstein National Research Service Award (National Institutes of Health)
2007	American Academy of Pediatrics Committee on Clinical Information Technology Best Paper Award
2007	American Health Association Top Ten Research Advances in Stroke and Cardiovascular Medicine
2008	Healthcare Information and Management Systems Society Dvora Brodie Scholarship
2008	Massachusetts Medical Society's Committee on Information Technology Student and Resident Information Technology Award
2008	The John J W Fangman Award (outstanding Med-Peds mentorship) (Harvard University)
2008	<i>Ladies' Home Journal</i> Health Breakthrough Award
2009	<i>Contemporary Pediatrics</i> top 10 articles of interest to general pediatricians
2010	Fellow of the American College of Physicians
2011	Association of Medical Directors of Information System (AMIDIS) Individual Award for Excellence, Outstanding Achievement and Special Recognition in Applied Medical Informatics (2011)
2012	Top 25 Clinical Informaticists in the United States by <i>Modern Healthcare</i>
2013	Notable Contribution to the Clinical Research Informatics Literature in 2012 (for Kaelber DC, et al. <i>JAMIA</i> ; 19(6):965-72)
2014	Government Technology Research Alliance and HealthTech Research Advisory and Council Executive Technology Award
2016	Top 30 Chief Medical Informatics Officer expert in the United States by <i>Health Data Management</i>
2016	Fellow of the American College of Medical Informatics

C. Contributions to Science

- I have always had an interest in using technology to improve health. This interest was first expressed from a research perspective during my PhD in biomedical engineering, looking at a new way to image the electronic activity of the heart and then during medical school in developing a website to teach the cardiac exam. As my career moved into informatics this interest evolved into studying the use the electronic health record tools to improve health. Selected representative publications in this area include:
 - MA Baker MA, **DC Kaelber**, DS Bar-Shain, PL Moro, B Zambarano, M Mazza, C Garcia, A Henry, R Platt, and M Klompas. *Advanced Clinical Decision Support for Vaccine Adverse Event Detection and Reporting*. Clin Infect Dis. 2015 Jun 9. PMID:26060294.
 - D Bar-Shain, M Stager, A Runkle, J Leon, and **DC Kaelber**. *Direct Messaging to Parents/Guardians to Improve Adolescent Immunizations*. Journal of Adolescent Health. 2015. 2015 May;56(5 Suppl):S21-6. PMID:25863550.
 - DC Kaelber**, R Waheed, D Einstadter, TE Love, RD Cebul. *Use and Perceived Value of Health Information Exchange – One Public Healthcare System's Experience*. American Journal of Managed Care (Special Health Information Technology issue). Am J Manag Care. 2013; 19(10 Spec No. 10):SP337-343. PMID:24511888.
 - DC Kaelber**, SB Bierer, and JR Carter. *A Web-based Clinical Curriculum on the Cardiac Exam*. Academic Medicine. 2001 May; 76(5):448-449. PMID:11346597. (<http://mediswww.cwru.edu/cardiaceexam>)
- A second early research interest was the field of combined internal medicine and pediatrics physicians. Through research collaborations that I created with the American Academy of Pediatrics Med-Peds Section, the Med-Peds Program Directors Association, and the National Med-Peds Residents' Association a number of research questions were asked and answered regarding the training and practices of combined internal medicine and pediatric physicians. Publications stemming from this work include:
 - JK Chamberlain, MP Frinter, TA Melgar, **DC Kaelber**, and B Kan. *Correlates and Trends in Training Satisfaction on Completion of Med-Peds Residency - A 5-Year Study*. Journal of Pediatrics. 2012 Apr; 160(4):690-6. Epub 2011 Nov 1. PMID:22048051.
 - RJ Fortuna, DY Ting, **DC Kaelber**, and SR Simon. *Characteristics of Medicine-Pediatrics Practices: Results from the National Ambulatory Medical Care Survey*. Academic Medicine. 2009 Mar; 84(3):396-401. PMID:19240455.

- c. JK Chamberlain, WL Cull, BD Kan, T Melgar, **DC Kaelber**. *The Effect of Dual Training in Internal Medicine on the Career Path and Job Search Experience of Pediatric Graduates*. Journal of Pediatrics. 2007 Oct; 151(4):419-24. Epub 2007 Aug 23. PMID:17889081.
 - d. T Melgar, WL Cull, **DC Kaelber**, BD Kan, JK Chamberlain. *Training Experiences of Combined Internal Medicine-Pediatrics Residents*. Academic Medicine. 2006 May; 81(5):440-6. PMID:16639198.
3. Using electronic health record (EHR) data (“big data”) for clinical discovery, evolved from my interests using (EHRs) to improve health. Initial work in pediatric hypertension lead to one of the top ten research advanced in stroke and cardiovascular medicine, as designated by the American Health Association. Additional “big data” work has investigated areas from disease progression and associations to guidelines compliance to post-market drug surveillance. Selected representative publications in this area include:
- a. AG Fiks, RW Grundmeier, J Steffes, WG Adams, **DC Kaelber**, WD Pace, and RD Wasserman. *Comparative Effectiveness Research Through Collaborative Electronic Reporting (CER2) Consortium*. Pediatrics. 2015 Jul;136(1):e215-24. PMID:26101357
 - b. V Patel and **DC Kaelber**. *Using Aggregated, De-Identified Electronic Health Record Data for Multivariate Pharmacosurveillance: A Case Study of Azathioprine*. Journal of Biomedical Informatics (Special Clinical Research Informatics issue). 2013 Oct 28. pii: S1532-0464(13)00161-5. PMID:24177317.
 - c. **DC Kaelber**, W Foster, J Gilder, TE Love, and AK Jain. *Patient Characteristics associated with Venous Thromboembolic Events (VTEs) - A Cohort Study using Pooled Electronic Health Record (EHR) data*. Journal of the American Medical Informatics Association. 2012 Nov 1; 19(6):965-72. Epub 2012 Jul 3. PMID:22759621. (EDITOR'S CHOICE ARTICLE)
 - d. ML Hanson, PW Gunn, and **DC Kaelber**. *Underdiagnosis of Hypertension in Children and Adolescents*. Journal of the American Medical Association. 2007 Aug 22; 298(8):874-9. PMID:17712071.

MyBibliography of Published Work (from ~150 manuscripts, abstracts, and proceedings):

<http://www.ncbi.nlm.nih.gov/sites/myncbi/1VYxa8VXTLkp/bibliography/43761436/public/?sort=date&direction=descending>

D. Research Support

Ongoing Research Support

1. KRR0244990A1, P Davis (PI) 09/17/07 - 05/31/17
National Institutes of Health Clinical and Translational Science Award
Cleveland Translational Science Consortium (CTSC)
Goal: To establish a novel and academic home to train leaders for the nation’s multidisciplinary clinical and translational sciences workforce.
Role: Site Principal Investigator, Co-Investigator, and Informatics Lead
2. R40MC24943, M Wasserman (PI) 09/01/12 - 08/31/17
Health Services Research Administration
Primary Care Drug Therapeutics Clinical Effectiveness Research (CER) in a Pediatric EHR Network
Goal: To develop an EHR-based pediatric practice research network of over 1.3 million children to study asthma, behavior issues and hypertension in children and adolescents.
Role: Site Principal Investigator, Co-Principal Investigator
3. DP2HD084068-01, R Xu (PI) 09/15/14 - 08/31/19
National Institutes of Health – Director’s New Innovator Award
Rapid reverse translational drug repositioning
Goal: To use electronic health record data and genomic data to identify novel uses for existing drugs.
Role: Co-Investigator
4. PCORI TBD, S Floke (PI) 01/01/16 - 09/30/17
Patient Centered Outcomes Research Institute
Using a teachable moment communication process to improve outcomes of quit line referrals
Goal: To improve point of care effective referral to smoking quit line.
Role: Co-Investigator
5. CDC Contract 200-2015-8769 W Pace (PI) 11/01/15 - 10/31/20
Centers for Disease Control and Prevention
Diabetes Quality-Related eMeasures from EHR Data.
Goal: To use standard electronic health records to design and implement diabetes progression and diagnosis.
Role: Site-PI

Completed Research Support

1. R43GM112523-01A1 D Fram (PI) 10/01/14 - 09/30/16
Small Business Innovation Research
Transitioning Electronic Support for Public Health (ESP) from Lab to Marketplace.
Goal: To help enable wide dissemination of the open-source ESP software for automated disease reporting.

- Role: Key Personnel
2. NIDA 9920000369 T Windhusen (PI) 09/01/14 - 08/31/16
 National Institute on Drug Abuse
Ohio Valley Node Clinical Trials Network
 Goal: To develop electronic health records as a tool for drug abuse research
 Role: Consultant
 3. 8231691 S Kane (PI) 09/01/13 - 08/31/15
 Pfizer Corporation
Utilization of the electronic medical record (EMR) to evaluate vaginal atrophy in a geriatric primary care population; measuring impact of screening and treatment on quality of life and patient satisfaction.
 Goal: To use EMRs and electronic personal health record tools to screen and evaluate vaginal atrophy.
 Role: Co-Investigator
 4. AHRQ HS020919 J Sudano (PI) 09/01/11 - 07/31/15
 Agency for Healthcare Research and Quality
Open Source, Public Domain, Health Risk Assessment for Use in Primary Care
 Goal: To develop an open source, web-based and software as a service health risk assessment tool.
 Role: Consultant
 5. 200-2014-M-60490 R Zambarano (PI) 09/01/14 - 05/31/15
 Centers for Disease Control and Prevention
Quality-Related eMeasures from EHR Data.
 Goal: To use standard electronic health records to design and implement a Chlamydia e-measure.
 Role: Consultant
 6. Robert Wood Johnson Foundation 70237 R Cebul (PI) 07/01/12 - 06/30/14
Red Carpet Care for Patients in Greatest Need
 Goal: Lower the utilization and improve quality of care of high resource utilizers in the MetroHealth System.
 Role: Co-Investigator