

## Supplemental Digital Appendix 1

Medical Schools With or Without Scholarly Concentration Programs in an Internet-Based National Sample of 43 U.S. Medical Schools, April 2014

Schools with scholarly concentration program	Public or Private	Program name	Scholarly concentrations offered
Baylor College of Medicine	Private	Tracks	Research Ethics Global Health Geriatrics Care of the Underserved Medical Management Genetics Space Medicine
Brown University (Alpert)	Private	Scholarly Concentrations	Advocacy and Activism Aging Caring for Underserved Communities Contemplative Studies Disaster Medicine and Response Global Health Health Policy Integrative Medicine Medical Education Medical Humanities and Ethics Medical Technology and Innovation Physician as Communicator Women's Reproductive Health
Case Western Reserve University	Private	Research Block + Thesis	
Columbia University	Private	Scholarly Projects	Basic science Clinical research Global health Community health Narrative and social medicine Medical education

Duke University	Private	Study Programs	Anesthesiology, Surgery, and Environmental Physiology Study Program (ASEP) Behavioral Neurosciences Study Program (BSP) Biomedical Engineering Study Program (BES) Biomedical Imaging and Medical Physics (BIMP) Cardiovascular Study Program (CVS) Clinical Research Study Program (CRSP) Epidemiology and Public Health Study Program (EPH) MPH/ Dual Degree Programs (MBA, JD, MPP) Global Health Study Program (GHSP) Human Genetics and Genomics Study Program (HGP) Medical Humanities Study Program (MED HUM) Microbiology, Infectious Diseases and Immunology Study Program (MIDIP) Molecular Medicine Study Program (MolMed) Pathology Study Program (PSP) Neurosciences Study Program (NSS) Ophthalmology and Visual Science Study Program (OVS)
Emory University	Private	Discovery Phase	Area of students' choosing (hypothesis-driven research project must be a scientific inquiry based in Medicine) e.g., translational or clinical research, public health, education, community development, medical ethics, etc.
Harvard University	Private	Scholarly Projects	Biologic and Translational Research Global and Community Health (including primary care) Health Care Policy and Health Services Medical Humanities Outcomes Research, Quality Improvement, and Clinical Epidemiology
Johns Hopkins University	Private	Scholarly Concentrations	Basic Science Clinical Research History of Medicine Medical Humanities, Bioethics and the Healing Arts Public Health and Community Service
Mayo Medical School	Private	Research Quarter	
New York University	Private	Concentrations	Basic, Clinical, or Translational Science Global Health Health Disparities Health Systems Innovation and Policy

Northwestern University (Feinberg)	Private	Area of Scholarly Concentration	Clinical Investigation Translational Research Community and Family Health Global Health Medical Social Sciences Medical Humanities
Ohio State University	Public	Student Projects	Systems longitudinal project (basic + clinical four year experience) Health coaching Patient safety Health systems Interdisciplinary team-based problem solving
Oregon Health and Science University	Public	Scholarly Projects	Basic, clinical or translational research Patient safety or quality improvement Global health
Stanford University	Private	Scholarly Concentrations	Bioengineering Biomedical Ethics & Medical Humanities Clinical Research Community Health Health Services & Policy Research Informatics & Data-Driven Medicine Medical Education Molecular Basis of Medicine Cancer Biology Cardiovascular & Pulmonary Immunology Global Health Neuroscience, Behavior, and Cognition Women's Health & Sex Differences
University of Alabama–Birmingham	Public	Scholarly Activity	Laboratory Based Biomedical Research Patient Based Research Medicine and Humanities (includes Ethics) Community and Rural Health Public Health/International Health Health Education and Outcomes Research/ Quality Measures/Informatics
University of California–Davis	Public	Scholarly Project Option	Clinical research Basic research Translational research Chart abstraction research Epidemiological research including international work Survey research Historical research Policy related research Health services research Meta-analyses

			Educational research (including curriculum development or educational web-tool development)
University of California—San Diego	Public	Independent Study Project	Scientific Research Community Service/Leadership Medical Education Analysis of a Scientific or Medical Problem The Focused Clinical Multidisciplinary ISP (FCM-ISP)
University of California—San Francisco	Public	Pathways to Discovery	Clinical and Translational Research Pathway Global Health Pathway Health & Society Pathway Health Professions Education Pathway Molecular Medicine Pathway
University of Chicago (Pritzker)	Private	Scholarly Tracks	Scientific Investigation Medical Education Quality and Safety Community Health Global Health
University of Colorado—Denver	Public	Tracks & Mentored Scholarly Activity	Colorado Urban Underserved Interprofessional Health Training and Education (CU-UNITE) Global Health Leadership, Education and Advocacy Development Scholarship (LEADS) Research Rural Women's Care Basic Biomedical Science Clinical Science Epidemiology, Public & Community Health Global Health Bioethics, Humanities, Arts, & Education
University of Iowa (Carver)	Public	Distinction Tracks	Global Health Humanities Research Service Teaching
University of Michigan—Ann Arbor	Public	Paths of Excellence	Global Health and Disparities Ethics

University of Nebraska Medical Center	Public	Enhanced Medical Education Tracks	Aging and Integrated Medicine Auto-Immune Diseases Clinical Quality and Patient Safety Comprehensive HIV Medicine Medical Humanities and Arts Preventive Medicine Underserved Health Care
University of New Mexico	Public	Research Requirement	
University of North Carolina—Chapel Hill	Public	Student Scholars	Primary Care and Population Health Rural and Underserved Family Medicine
University of Pennsylvania (Perelman)	Private	Scholarly Pursuits & Certificates	
University of Pittsburgh	Public	Areas of Concentration & Scholarly Project	Disabilities Medicine Geriatric Medicine Global Health Integrative Medicine Medical Humanities Neuroscience Patient Safety & Quality Improvement Public Health Resuscitation Women's Health
University of Rochester	Private	Elective Pathways	Humanities and/or Clinical Bioethics Latino Health Deaf Health Medical Education Global Health
University of Virginia	Public	Generalist Scholars Program	Primary care
University of Washington	Public	Pathways	Hispanic health Indian health Global health Underserved
Vanderbilt University	Private	Immersion	Biomedical Education, Informatics, Policy, Ethics and Humanities Research Clinical and Translational Research Epidemiology and Health Services Research International and Community Healthcare Research Laboratory-based Research

Yale University	Private	Thesis
Schools without scholarly concentration program	Public or Private	Non-SC Program
Cornell University (Weill)	Private	MD with Honors
East Carolina University (Brody)	Public	
Michigan State University (COM)	Public	Preclerkship Electives
Mount Sinai School of Medicine (Icahn)	Private	InFocus Weeks
University of California– Los Angeles (Geffen)	Public	Selectives
University of Massachusetts– Worcester	Public	Optional Enrichment Electives (OEE)
University of Minnesota	Public	Flexible MD
University of Texas Southwestern Medical Center	Public	MD with Distinction
University of Wisconsin–Madison	Public	Electives & Path of Distinction in Public Health
Wake Forest University	Private	
Washington University in St. Louis	Private	Selectives

## Supplemental Digital Appendix 2

Topics, Rotated Factor Loadings (Primary Loadings Highlighted), and Assigned Factors From Exploratory Factor Analysis of Medical Students' Preferences for Topic Coverage in Curriculum, University Of Michigan Medical School, August 2014

Topic	Factors							
	Humanism in Medicine	Business & Entrepreneur.	Basic & Translational Research	Teaching & Curriculum Development	Quality, Safety, & Doctoring	Health Policy, Economics, & Leadership	Care of the Underserved	Informatics & Big Data
Medical Humanities, Arts, and History	<b>0.46</b>	0.02	0.04	0.16	0.12	-0.05	0.05	-0.02
Medical Journalism	<b>0.46</b>	0.05	0.00	0.13	0.03	0.03	0.02	0.04
Law and Medicine	<b>0.43</b>	0.06	0.01	0.00	0.04	0.25	0.00	0.07
Bioethics	<b>0.41</b>	-0.05	0.14	0.05	0.07	0.16	0.11	0.01
Health Business / Entrepreneurship	-0.06	<b>0.77</b>	0.00	-0.02	-0.02	0.09	0.03	-0.05
Product Development / Commercialization	-0.02	<b>0.76</b>	0.09	-0.03	-0.02	-0.08	-0.01	0.04
Market Research	0.14	<b>0.75</b>	-0.04	-0.01	0.01	0.00	-0.03	0.06
Translational Research	0.02	0.02	<b>0.77</b>	0.00	0.09	0.02	-0.03	0.01
Basic Science Research	0.03	0.00	<b>0.77</b>	0.03	-0.10	-0.03	-0.03	-0.01
Curriculum Development	0.04	-0.01	-0.03	<b>0.83</b>	-0.11	0.00	-0.01	0.09
Teaching in the Medical Setting	0.06	-0.06	0.10	<b>0.68</b>	-0.01	0.00	0.05	-0.10
Student Evaluation and Assessment	0.03	0.00	-0.04	<b>0.63</b>	0.14	-0.07	-0.05	0.08
Interprofessional Collaboration	0.01	0.12	0.06	<b>0.39</b>	0.12	0.02	0.24	-0.07
Doctoring Topics	0.13	-0.02	-0.05	0.03	<b>0.64</b>	-0.13	0.14	-0.01
Patient Safety	-0.12	-0.02	0.03	0.15	<b>0.55</b>	0.20	-0.06	0.06
Risk Communication / Decision Making	0.22	0.08	-0.09	0.07	<b>0.48</b>	-0.03	0.07	0.11
Evidence-Based Exam	0.16	0.03	0.10	-0.02	<b>0.48</b>	-0.03	0.04	0.09
Quality Improvement	-0.28	0.08	0.01	0.16	<b>0.43</b>	0.30	-0.07	0.10
Health Policy	0.14	-0.04	0.05	-0.04	-0.01	<b>0.76</b>	0.11	0.03
Health Economics	0.09	0.20	0.00	-0.05	-0.03	<b>0.64</b>	0.00	0.08
Leadership / Hospital Administration	-0.04	0.29	-0.10	0.21	0.06	<b>0.39</b>	-0.04	-0.05
Global Health	-0.05	0.05	-0.01	0.05	-0.09	-0.08	<b>0.79</b>	0.04
Service / Community Development	-0.04	-0.01	0.00	-0.01	0.20	-0.02	<b>0.71</b>	-0.08
Human Rights	0.19	-0.08	0.01	0.00	-0.04	0.13	<b>0.59</b>	-0.01
Public Health	0.03	-0.11	-0.11	0.01	0.03	0.17	<b>0.52</b>	0.29
Advocacy and Communication	0.10	0.04	0.04	0.09	0.23	0.26	<b>0.33</b>	-0.07
Public Health Informatics	0.12	0.02	-0.07	0.05	0.10	0.01	0.16	<b>0.68</b>
Clinical Data Mining / Big Data	-0.11	0.10	0.16	0.02	0.06	0.05	-0.10	<b>0.65</b>
Bioinformatics <sup>a</sup>	0.11	0.08	<b>0.40</b>	0.00	-0.07	-0.10	0.00	<b>0.44</b>

Supplemental digital content for Burk-Rafel J, Mullan PB, Wagenschutz H, Pulst-Korenberg A, Skye E, Davis MM. Scholarly Concentration Program Development: A Generalizable, Data-Driven Approach. Acad Med. 2016;91(11 Suppl).

Clinical / Outcomes Research <sup>b</sup>	-0.13	0.08	0.27	0.07	0.12	0.13	0.08	0.13
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<sup>a</sup> "Bioinformatics" crossloaded on two factors  
<sup>b</sup> "Clinical / Outcomes Research" did not load heavily on any one factor