

**BUILT SPACE** 

Design Museum

**Healthcare** 











CLINICIANS for DESIGN

Hx **Lab** 





THE LANCET

































































Architecture and bioethics

Updated Alternative Care Site tool developed by AIA to be distributed internationally by US Department of State

Archinect

# **DIANA C. ANDERSON** MD, M.ARCH, OAQ, ACHA, ABIM

Submission Package

Sponsor: William J. Hercules,



2023 ACHA Fellowship

FAIA, FACHA, FACHE





**PROGRAM** 

**ABSTRACTS** 













Modern

Healthcare















# SUMMARY OF ACHIEVEMENTS

# dochitect\*



Diana Anderson pioneers a unique hybrid career model, bridging architecture and medicine through cross-disciplinary ideation, disseminating these novel insights globally, applying their design implications, and setting new paradigms for empirical practice and public health advocacy.

### A NEW HYBRID CAREER MODEL

As a unique triple boarded professional—an ACHA healthcare architect, internist, and geriatrician—Diana has developed a unique hybrid academic and professional career. As a "dochitect®," she pioneered a collaborative, evidence-based model for approaching healthcare from the medicine and architecture fields simultaneously. Diana has introduced the physical determinants of health to both fields and fostered cross-disciplinary collaborations in developing design solutions. Through healthcare design projects and research globally, she has earned a unique and highly valued international reputation.

### CROSS-DISCIPLINARY DESIGN SOLUTIONS

Diana has advanced intensive care unit (ICU) design:

- Chair of the Society of Critical Care Medicine's (SCCM) ICU design committee and co-author of the 2012 ICU Design guidelines.
- Co-chair of a task force alongside Kirk Hamilton, PhD, FAIA, FACHA, FSCCM to update the 2024 SCCM Guidelines for use in clinical and design practice.
- Honored 7 times with SCCM Presidential Citations, recognizing extraordinary contributions.

She was involved in the COVID-19 pandemic response:

 Diana was invited by the AIA to develop a checklist for alternate care sites. The tool was distributed internationally by the U.S. Department of State, and was translated into three languages.

### Category One - B

To advance the Art and Craft of healthcare planning and design through superior evidence of contributions to the practice of healthcare architecture in research, education and literature.

As a geriatrician and Instructor of Neurology, Diana is an expert in space design for aging:

- She was invited by counsel to the Ontario Long-Term Care (LTC) COVID-19 Commission, established to investigate COVID in LTC homes and make recommendations to prevent future outbreaks.
- The Royal Architectural Institute of Canada asked her to serve on their LTC committee, providing advocacy statements to the Canadian government on the need for physical infrastructure in the current standards.

### **EDUCATION AND MENTORSHIP**

Diana has provided frequent career mentorship to over 75 students and early-career professionals in both architecture and medicine. To further address this growing demand she co-founded Clinicians for Design (CfD), an international non-profit platform which seeks to enrich health by engaging clinical practice, education and research.

### TOWARDS AN EMPIRICAL PRACTICE THROUGH RESEARCH

Diana's commitment to the model of evidence has resulted in leading primary research to collect empirical data and disseminate results across the profession and design quidelines.

- She was a 2019 Finalist of the AIA College of Fellows Latrobe Prize.
- She is an Alzheimer's Association Clinical Scientist Fellowship recipient (\$175,000) leading a multi-year study on the impact of community and home design on older adults and their mental, social, and cognitive health.
- She received \$200,000 from Mass General Brigham to study the ICU and space factors that impact delirium.

These collaborative research undertakings work towards creating new models of practice and built environments.

### IDEA DISSEMINATION & PUBLIC HEALTH ADVOCACY

Through research, publications, and speaking initiatives, Diana has brought the topic of healthcare design to the forefront within the clinical, architectural, public health, and bioethics domains.

**Publications**: 28 peer-reviewed articles, 4 medical textbook chapters, 43 popular press articles and podcasts, and featured in 25 significant news and media contributions (including The New York Times, Metropolis, Bloomberg Press, etc.). Her scholarly work has been cited over 560 times by others.

**Presentations**: 43 national and 16 international venues (including London, Dublin, Glasgow, and Canada). Diana has been invited to lecture in prestigious academic institutions to both architecture and clinical programs, including Johns Hopkins, Harvard's Graduate School of Design & School of Public Health, Georgetown University, etc.

A past Harvard Medical School Bioethics Fellow, Diana utilized this knowledge to further bridge medicine and architecture through the study of bioethics of healthcare spaces, by:

- Leading a task force to redevelop the ACHA Code of Ethics, exploring the moral imperative of healthcare architects in improving healthcare experiences and outcomes.
- Being one of the first to explore the bioethics of built space, and her pivotal publication in the Hastings Center Report supports the hypothesis that healthcare design should be considered a medical intervention.

In 2018 Diana was awarded Healthcare Design's Best Under 40 from the AIA Academy of Architecture for Health; one of two recipients that best exemplified someone making a significant contribution to the advancement of health facilities design.

Diana has committed her career to integrative thinking and creative problem solving through the hybrid model, impacting the future practice of healthcare design.

# ACCOMPLISHMENTS - NOMINEE INFORMATION & TRAINING



### NOMINEE INFORMATION

Diana Anderson Name

Address 201-205 Victoria Avenue

Montreal, Quebec H3Z 2M5 Canada

**Telephone** 617-505-9106

diana.anderson@dochitect.com Email

### Sponsor Information

Name William J. Hercules, FAIA, FACHA, FACHE

**Position** Founder & CEO, WJH Health

Address Orlando, Florida **Telephone** 407-312-1065

**Email** Bill@wjh-health.com

### **EDUCATION**

2002 BSc(Arch) (Honors) McGill University, Montreal, Quebec, Canada: Architecture

M.Arch (Honors) McGill University, Montreal, 2004

Quebec, Canada: Architecture

MD (Honors) University of Toronto, Toronto, 2008

Ontario, Canada: Medicine

### **ADDITIONAL TRAINING**

2003-2004	Planning and Design / Thesis: Design Proposal for the McGill University Health Centre, American Institute of Architects & American Hospital Association
2008-2009	Tradewell Fellowship in Health Facility Planning & Design, WHR Architects, Houston, TX
2012-2015	Resident in Internal Medicine, Columbia University Medical Center / New York- Presbyterian Hospital, New York, NY
2018-2019	Fellow, Center for Bioethics, Harvard Medical School, Boston, MA
2019-2020	Clinical Fellow in Geriatric Medicine, University of California, San Francisco, San Francisco, CA
2020- Present	Clinical Fellow, Harvard Medical School, Boston, MA
2020- Present	Post-Doctoral Fellow, VA Boston Healthcare System, Boston, MA. Supervisor: Andrew Budson, MD
2021-2022	Recipient, Research Education Component (REC) Scholars Program Boston University Alzheimer's Disease

Research Center (ADRC), Boston, MA



School of Architecture











### CATEGORY OF NOMINATION

### Category One - B

To advance the Art and Craft of healthcare planning and design through superior evidence of contributions to the practice of healthcare architecture in research, education and literature.

### STATEMENT OF ELIGIBILITY

Diana Anderson, MD, M.Arch, OAQ, ACHA, ABIM has been an ACHA certificant in good standing for 8 years to the present date.

# **ACCOMPLISHMENTS - QUALIFICATIONS & EXPERIENCE**

### **ACADEMIC APPOINTMENTS**

2021-Present	Instructor of Neurology, Boston University
	School of Medicine, MA

### PROFESSIONAL HISTORY

T NOI EGGIONAL THOTON			
2009-2011	Medical Planner, WHR Architects (now EYP Architects), Houston, TX		
2011-2012	Medical Planner, Hames Sharley Architects (Sunshine Coast University Hospital Bid), Brisbane, QLD, Australia		
2015-2016	Medical Planner, Stantec Architecture, New York, NY		
2017-2018	Healthcare Design Researcher, Perkins+Will Architects, Toronto, ON, Canada		
2018-2019	Principal Medical Planner, Steffian Bradley Architects, Boston, MA		
2020-Present	Principal, Healthcare Design, Jacobs Advisory Services, Boston, MA		

# THE TRADEWELL FELLOWSHIP



### CONSULTANT ROLES IN HEALTHCARE DESIGN

CONSULIANT R	OLES IN MEALTHCARE DESIGN
2009-2010	Consultant (Healthcare Design), Plenary Group (Bridgepoint Hospital Redevelopment Project) Toronto, ON, Canada
2013	Consultant (Healthcare Design), Montgomery Sisam Architects & Centre for Addiction & Mental Health Redevelopment Project Toronto, ON, Canada
2017	Consultant (Healthcare Design), EOS Surfaces Norfolk, Virginia
2019	Consultant (Healthcare Design), Sunnybrook Health Sciences Centre Toronto, ON, Canada
2020	Invited member, External Expert Advisory Committee, Revera Home Health, Retirement Living and Long Term Care Services Toronto, ON, Canada
2020-2021	Expert Advisory Services, Thomson Rogers Law Firm Toronto, ON, Canada
2020-Present	Expert Advisory Services (design for dementia facilities and care), Alexis Lodge Social Services Inc Scarborough, ON, Canada

### LICENSES & CERTIFICATIONS



Accredited Professional, Leadership in Energy & Environmental Design (LEED)



Member (License), Order of Architects of Quebec (OAQ) #A5069



American College of Healthcare Architects (ACHA) #0583



American Board of Internal Medicine (ABIM) #361593



California State Medical License #A148013 American Board of Internal Medicine (ABIM) – Geriatric Medicine #361593

# **ACCOMPLISHMENTS - LEADERSHIP POSITIONS**

### LEADERSHIP ROLES

2007-2008	Co-Editor-in-Chief, University of Toronto Medical Journal (UTMJ)
2007-2011	Member, Advisory Board International Academy for Design & Health, Clayfield, QLD, Australia
2017- Present	Appointed Advisor, Proposed Centre for Architecture, Design+Health Innovation, University of Toronto, an interdisciplinary research and education institute University of Toronto, Toronto, ON, Canada
2017- Present	Co-Founder, Clinicians for Design (CfD)
2021-2024	Appointed co-chair to revise and update the 2012 Guidelines for ICU Design, Society of Critical Care Medicine (SCCM)
	,
2015- Present	Professional Fellow, Center for Health Systems & Design  Professional Fellows include professional practitioners, researchers with a common interest through their academic or research emphasis on healthcare who are working with the Center

Appointed Board Member, The Facility

Guidelines Institute (FGI)



2020-2022



# PROFESSIONAL SOCIETIES: Memberships and Committee Assignments

Member, Royal Architectural Institute of Canada (RAIC)
Member, Research Committee, Nursing Institute for Healthcare Design (NIHD)
International Associate Member, American Institute of Architects (AIA)
Member, American Geriatrics Society (AGS)
Member, American Society for Bioethics and Humanities (ASBH)

### American College of Healthcare Architects (ACHA)

2017-2019	Appointed Member, Education Committee			
2019-2020	Appointed Taskforce Leadership to develop an ethics policy for health architects			

### American Institute for Architects (AIA)

2017-2018	Outreach Committee Member, AIA Academy of Architecture for Health (AIA- AAH), connecting architects to healthcare & policy
2020	Invited Member, COVID-19 Response Taskforce

### **Society of Critical Care Medicine (SCCM)**

2009- Present	Appointed Member, ICU Design Committee		
2012-2014	Vice-Chair Elect, ICU Design Committee		
2014-2016 Chair Elect, ICU Design Committee			
2016-2018	Past Chair, ICU Design Committee		
2016- Present	Appointed Member, Patient and Family Support Committee		

### **GRANT & DESIGN COMPETITION REVIEWER ACTIVITIES**

2016	Jury Chair, Annual Awards in Universal Design, The Royal Institute of the Architects of Ireland (RIAI) & The Centre for Excellence in Universal Design (CEUD) Dublin, Ireland				
2016	Invited Jury Member, Healthcare Design (over 25,000 square meters) category, European Healthcare Design Awards London, UK				
2017	Invited Lead Judge, Healthcare Design (over 25,000 square meters) category, European Healthcare Design Awards London, UK				
2020	Invited Reviewer, Healthy Longevity Global Competition Catalyst Awards, U.S National Academy of Medicine (NAM)  a multiyear, multi-million-dollar international competition seeking breakthrough innovations to extend human health and function later in life				

### JOURNAL PEER REVIEWER

- Health Environments Research and Design Journal
- Health Affairs
- Chest Journal
- Journal of Palliative Care
- Canadian Medical Association Journal
- Irish Journal of Psychological Medicine
- Medical Humanities
- Journal of Multidisciplinary Healthcare

HONORS | INSTITUTIONAL

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HONORG	NOTIONAL	2004	Hugh McLennan Memorial Scholarship (travel
2000	David Griffiths Memorial Scholarship (high academic standing, participation and leadership in community affairs), School of		scholarship for highest standing throughout professional studies in architecture), School of Architecture, McGill University
2000	Architecture, McGill University	2004	John Wolfe McColl Memorial Award (high academic standing during premedical studies),
2000	Louis Robertson Book Prize (highest standing in history of architecture), School of Architecture, McGill University	2007	Faculty of Medicine, University of Toronto Walter F. Watkins Scholarship (honors standing
2000	Golden Key National Honour Society, McGill University Chapter		in third year medical clerkship), Faculty of Medicine, University of Toronto
2000	Favretto Scholarship (performance in design projects), School of Architecture, McGill	2008	Dr. George K. Balkos Memorial Scholarship (excellence in bioethics), Faculty of Medicine, University of Toronto
2001	University Philip J. Turner Prize (excellence in architecture design studio), School of Architecture, McGill University	2008	Dr. Gabriel Leung Memorial Scholarship (outstanding academic performance in family medicine), Faculty of Medicine, University of Toronto
2001	Murdoch Laing Prize (excellence in architecture design studio), School of Architecture, McGill University	2014	Annual Resident Award Summit Recipient, Southeast Center of Excellence in Geriatric Medicine (SCEGM), The University of Alabama
2001	JW McConnell Award (academic achievement), Faculty of Engineering, McGill University,	2014	at Birmingham, AL Annual Bechtel Scholarship Award Summit
2001	Clifford C.F. Wong Scholarship (high academic standing and leadership), School of	20	Recipient, Division of Geriatrics, University of California, San Francisco, CA
2002	Architecture, McGill University Wilfred Truman Shaver Travel Scholarship (high academic achievement in the B.Sc.	2014	Housestaff Research Award, Department of Internal Medicine, Columbia University Medical Center, NY, NY
	(Arch) program), School of Architecture, McGill University	2015	Meltzer Fellowship for Excellence in Medical Ethics, Department of Internal Medicine,
2002	Scarlet Key Award (contribution to student life), McGill University		Columbia University Medical Center, NY, NY
2002	McGill Alumnae Society Prize (high academic	Honors	International
	standing within the graduating class), School of Architecture, McGill University	2007	Academy Research Award, International Academy for Design and Health (IADH)
2004	Dean's Honor List & Distinction, School of Architecture, McGill University		> Palliative care design study presented at the IADH World Congress

2004

Hugh McLennan Memorial Scholarship (travel)

# HONORS | NATIONAL

2013

	for intensive care unit design), Society of Critical Care Medicine (SCCM)
2018	Healthcare Design's Best Under 40, American Institute of Architects' Academy of Architecture for Health (AIA-AAH)
	> Selected as one of two recipients that best exemplified someone under 40 making a significant contribution to the advancement of health facilities design
2019	Finalist, American Institute of Architects (AIA) College of Fellows Latrobe Prize

> Proposed project: Perspectives influence the experience of space: multistakeholder experiences for defining, designing and computing health care encounters in common places

Section Award Winner (published guidelines

### 2012-**Presidential Citations, Society of Critical** 2018 Care Medicine (SCCM)

> Recognizes SCCM members who have made extraordinary contributions of time, energy, and resources to SCCM during the previous year

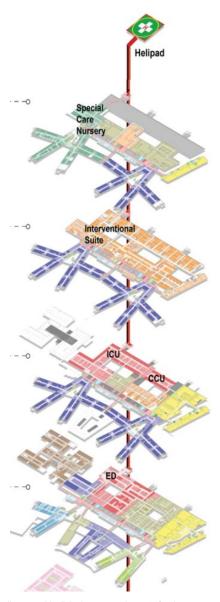
### HONORS | REGIONAL

2001	Rhodes Scholarship Finalist, Provincial Selection Committee, Quebec, Canada
2004	Honor Roll (high academic standing within the graduating class), Royal Architectural Institute of Canada (RAIC)
2004	Henry Adams Medal & Certificate of Merit (recognizes the highest standing in the M.Arch program), American Institute of Architects' (AIA)

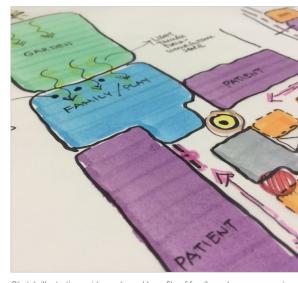
# **ACCOMPLISHMENTS - WORK**

### PROFESSIONAL PRACTICE PROJECTS

2008-2009	Master Facility Plan, Ocean Medical Center, Brick, NJ, WHR Architects, Houston, TX
2009	Pediatric Intensive Care Unit (PICU) Renovation, Jersey Shore University Medical Center, Neptune, NJ, WHR Architects, Houston, TX
2010	Emergency Department Addition, Stamford Health System, Stamford, CT, WHR Architects, Houston, TX
2010	Operating Suite Renovation, Georgetown University Hospital, Washington, DC, WHR Architects, Houston, TX
2011-2012	Sunshine Coast University Hospital (SCUH) P3 Proposal, Queensland, Australia, Hames Sharley Architects, Brisbane, QLD, Australia
2015	Cardiac Catheterization Laboratory and Interventional Radiology Suite, Northwell Health, Long Island, NY, Stantec Architecture, New York, NY
2015	Pediatric Inpatient Unit Renovation, Catholic Health Services, Islip, Long Island, NY, Stantec Architecture, New York, NY
2016	Facility Assessment, Space Utilization Plan, Pace University, College of Health Professions, New York, NY, Stantec Architecture, New York, NY
2016	Pediatric Inpatient Unit Renovation, Catholic Health Services, Long Island, NY, Stantec Architecture, New York, NY
2018	Heritage College of Osteopathic Medicine, Ohio University, Athens, OH, Perkins+Will Architects, Human Experience (HxLab) Lab, Toronto, ON, Canada



Stacking diagram with clinical program elements for the proposed sunshine Coast University Hospital, Brisbane, Australi (Image Credit: SALUS Partnership)



Sketch illustarting evidence-based benefits of family and green space in a pediatric unit (Sketch by: Diana Anderson)



Rendering showing aerial view for the proposed Sunshine Coast University Hospital, Brisbane, Australi (Image Credit: SALUS Partnership)

# **ACCOMPLISHMENTS - TEACHING**

### TEACHING EXPERIENCE & RESPONSIBILITIES

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2009	Teaching assistant for Health Facility Planning, Design and Construction, graduate student course, Master of Healthcare Administartion
	University of Houston Clear Lake, Texas
2008-2013	Guest Critic & Speaker for Graduate Design Studio & Graduate Typologies Seminar, led by Kirk Hamilton, PhD, FAIA, FACHA, FSCCM
	College of Architecture, Texas A&M University, College Station, TX
2009	Hospital Design: Lessons Learned as a Medical Student, Health Systems & Design Visiting Lecture Series
	College of Architecture, Texas A&M University, College Station, TX
2014	Survey of Healthcare Environments graduate course
	New York School of Interior Design, Healthcare Interior Design Program, New York, NY
2018	Medical School Selective in Medicine + Architecture, School of Social Studies in Medicine (SSoM)
	McGill University, Montreal, Canada
2019	Invited lecturer for Department of Medicine Life Stages Course, Geriatrics
	School of Medicine, University of California, San Francisco (UCSF)

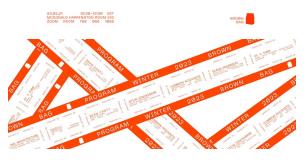
2020	Invited Guest Critic for ARC3600 Option Studio Final Review. Project: COVID pop-up ICU prototypes, led by Stephen Verderber, Arch.D
	John H. Daniels Faculty of Architecture, Landscape and Design, University of Toronto, Ontario, Canada
2021	Guest lecturer for Arch 406: Design and Construction 4, Section 007/008; CRN 15273 & 15274. Third year undergraduate studio project "Re-imagining long term residential care in Quebec"
	School of Architecture, McGill University, Montreal, Quebec, Canada
2021, 2023	Guest lecturer for ARC 920 Architecture, Nature, Health: Fourth year architectural undergraduate Design Option Studio on nursing home design
	Thesis Coordinator: Terri Peters, PhD (Architecture)
	Department of Architectural Science (DAS), Ryerson University, Ontario, Canada
2022, 2023	Invited thesis reviewer for ARCH-5555 Thesis Studio 1, Master of Architecture Program
	Thesis Coordinator: Aliki Economides, PhD. Student: Brett Walter, project "Movement Legacy: a bioethical and epigenetic-based architectural framework for healthy lifestyle change"

McEwen School of Architecture, Laurentian University, Sudbury, Ontario, Canada



Diana Anderson lecturing students, designers, and clinicians in training at the Johns Hopkins Berman Institue of Bioethics, Baltimore, MD

# DIANA ANDERSON



Poster announcement for Diana's participation in the McGill University School of Architecture student lecture series

# ACCOMPLISHMENTS - RESEARCH GRANT FUNDING

### **CURRENT**

Pilot Research Study, Intensive Care Unit Design & Delirium

Date	2022 - Present
Funding Body	Mass General Brigham Internal Funding Award, Boston, MA Harvard Center for Health Design
Cost	USD\$200,000 over 2 years
Role	Co-Principal Investigator

# Health Outcomes of Transitional Space Design for Older Adults with Dementia

Date	2022 - Present
Funding Body	Alzheimer's Association Clinician Scientist Fellowship (AACSF) Program
Cost	USD\$155,000 over 3 years (10% indirect), and \$20,000 stipend upon completion (AACSF-22-923724); Effort: 40% Start Date: August 1, 2022
Role	Principal Investigator

### Re-Imagining Eldercare in a Post-COVID Ontario: performance assessments of best practice long-term care facilities

Date	2020 - Present
Funding Body	University of Toronto's Centre for Design + Health Innovation
Cost	CDN\$49,461 (jointly funded by Jacobs Engineering CDN\$30,000 & the Ontario Association of Architects CDN\$19,461
Role	Co-Principal Investigator PI: Stephen Verderber, Arch.D
Output	Posted online: https://www.daniels.utoronto.ca/reimagining-long-term-care-architecture-post-pandemic-ontario-and-beyond

### **P**AST

Research Education Component (REC)

Date	2021 - 2022
Funding Body	Scholars Program Boston University Alzheimer's Disease Research Center (ADRC), Boston, MA
Cost	USD\$10,000 (P30-AG013846)
Role	Recipient of an interactive mentor training program for junior faculty

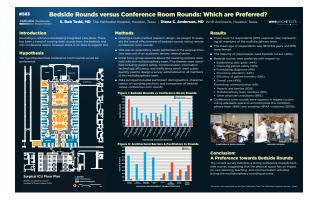
Intensive Care Unit Design: Defining the Best-Practice Model for Accommodating Multidisciplinary Rounding Practices

Date	2009 - 2010
Funding Body	Dyer Fellowship awarded by Surgical Intensive Care Unit, The Methodist Hospital, Texas Medical Center, Houston, TX
Cost	USD\$10,000
Role	Co-Principal Investigator PI: S. Rob Todd, MD, FACS

# A Collaborative Workspace for Subspecialty Clinical Fellows: Pilot Study

Date	2018 - 2019
Funding Body	Innovations Funding for Education, University of California, San Francisco
Cost	USD\$4,000
Role	Co-Investigator PI: Brian Block, MD

Diana has obtained over \$435,000 USD in research funding to study health design



Poster presentation demonstrating results for the Dyer Fellowship, awarded by The Methodist Hospital, Texas Medical Center, Houston, TX for the project entitled "Intensive Care Unit Design: Defining the best-practice model for accommodating multidisciplinary rounding practices"

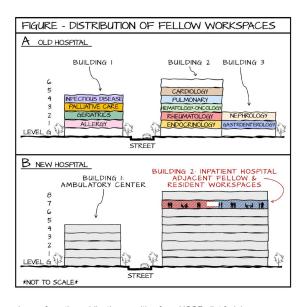


Image from the publication resulting from UCSF pilot fudning: "Getting Neighborly in 2030: A Shared Fellow Workspace Improves Communication, Teaching, and Burnout. J Grad Med Educ 2020;12(3):358-360.

# **ACCOMPLISHMENTS - PRESENTATIONS**

### Invited Lectures, Conference Presentations, Seminars, and Workshops Institutional

Institutional	
July 7, 2011	Design for Multidisciplinary Rounding Practices, International Academy for Design & Health 7th World Congress on Design & Health, Boston, MA
March 26, 2014	Epidemiology of Hospital System Patient Falls: A Retrospective Analysis, Department of Internal Medicine Grand Rounds, Columbia University Medical Center, New York, NY
Feb 27, 2015	Bricks and Morals: The Ethics of Architecture for Healthcare, Meltzer Fellowship in Medical Ethics Speaking Recipient, Department of Internal Medicine, Columbia University Medical Center, New York, NY
Oct 8, 2018	Design Thinking for Medicine, Change Maker event, HUBweek, Boston, MA
March 30, 2019	There is No Ramp Here: Crossing Disciplines, Health Equity and Leadership event, T.H. Chan School of Public Health, Harvard University, Boston, MA
April 29, 2019	Habitats for Healers: Architectural Design for Clinicians. Graduate School of Design, Harvard University, Cambridge, MA
Nov 12, 2020	Alzheimer's Disease: An overview. Alzheimer's Disease Research Center
Jan 5, 2022	(ADRC), Ambassador Program, Boston University, Boston, MA
Nov 17, 2022	Architectural / Environmental Approaches to Dementia Care. Harvard South Shore – Psychiatry Residency Training Program (PGY-3), Boston, MA

Jan 20,	If Architecture Influences Health
2023	Outcomes, How Should Healthcare
	Systems Respond? Bioethics at the
	Frontier of the Science of Design.
	Harvard Medical School Center for
	Bioethics, Organizational Ethics
	Consortium, Boston, MA.
	Discussant; Pierre Barker, MD, Chief
	Scientific Advisor, Institute for Healthcare
	Improvement (IHI)

Regional	
Sept 18, 2014	The Hospitalization Cascade: Healing or Hazardous? The Center for Health Design, New York, NY (sponsored by Steelcase)
June 19, 2014	Designing for the Clinician, The Center for Health Design, New York, NY. (sponsored by Steelcase & Waldners Business and Healthcare Environments)
Dec 10, 2015	A Dochitect and a User/Expert Share Views of Healthcare Design, Institute for Human Centered Design (IHCD), Boston, MA
March 15, 2016	Invited panel moderator for Healthcare Construction Forum, Professional Women in Construction New York Chapter, New York, NY
Oct 9, 2018	Architectural Form + Clinical Function: A Design Paradigm Follows, Institute for Human Centered Design (IHCD), Boston, MA
Oct 29, 2018	Rx: Design, How Architecture Impacts Health, Wilsonart, Dallas, TX. Lecture and workshop sponsored by Wilsonart
Jan 25,	The Architecture of Health, Design

Museum Everywhere, Boston, MA

2019



Presenting to hospital leaders during 2018 Hubweek, Boston, MA

May 30, 2019	The Intersection Between Design & Wellness: Optimizing the Patient- Provider Experience, Bisnow – National Healthcare New England, Boston, MA
Dec 15, 2020	Health Equity by Design, Liftoff PGH 2020: A virtual healthcare innovation summit, Pittsburgh, PA. Panel sponsored by IKM Architecture
Jan 9, 2021	Interview with a Dochitect: Medical Hybrid Careers, American Women's Medical Association (AMWA) Virtual Conference: "Thinking Beyond the White Coat" Session, NY/NJ section
Jan 12, 2021	Considerations for Designing Staff Support Spaces in Hospitals during Covid-19 and beyond, Healthcare Associated Infections Organization (HAIO): Creating Safe Healthcare Settings During the Covid-19 Pandemic and Beyond, Boston, MA (virtual event)
May 17, 2021	Architecture of Care During Pandemics: Designing for Health Equity Design and Research for Healthy Communities and Healthcare Facilities, University of Connecticut, CT (virtual event)

### National

Wayfinding in Hospitals and the Impact on Patient Care: Design Proposal for the McGill University Health Centre, American Institute of Architects: Academy of Architecture for Health, Washington, DC
When Drafting meets Doctoring- An Architect's View of Health Design as Resident Physician, Healthcare Design Conference, Orlando, FL
View from the Dochitect: Reflections of a Physician-Architect on ICU Design, Society of Critical Care Medicine Annual Congress, San Francisco, CA
From Bench to Bedside: Space Design and Multidisciplinary Collaboration, Healthcare Design Conference, San Diego, CA
Finding Respite in the Moment: Designing for Clinical Staff, The Agency for Health Care Administration (AHCA) 31st Annual Seminar, Orlando, FL
Disruptive Innovation: Is it Time to Rethink Healthcare Strategies? Healthcare Design Conference, Houston, TX
Therapeutic Sanatorium Design: Where Hospital Architecture & Medical Practice Converge (invited keynote), 2nd International Symposium on the History of Medicine & Related Disciplines, Texas A&M University Health Science Center, Bryan, TX
Architectural Design for Improved Healthcare Delivery. Stanford Medicine X. Oral Ignite! Session. Stanford University, Palo Alto, CA



Nov 7, 2017	Getting it Right: Designing the Process to Achieve Transformative Outcomes, Ontario Healthcare Association's HealthAchieve Congress, Toronto, Canada
Oct 28, 2019	Habitats for Healers: Architectural Design for Clinicians (invited keynote), Center for Innovation & Leadership in Education (CENTILE), Georgetown University, Washington, DC
Jan 27, 2020	Healthcare Architecture: A Moral Imperative, Johns Hopkins Berman School of Bioethics Seminar Series, Baltimore, MD
Oct 16, 2020	The Bioethics of Built Space: On the Shared Responsibilities of Bioethics and Architecture (selected panelist), American Society for Bioethics + Humanities (ASBH) Annual Meeting (virtual event due to COVID-19)
Jan 14, 2021	Architectural Design as a Determinant of Health, Tulane School of Medicine, Medical Student Government + GAPSA (Graduate professional student association) lecture series (virtual lecture due to COVID-19)
May 25, 2021	Architectural Design as a Determinant of Health (invited keynote), 2021 Symposium on Sustainability in Health Care, Cincinnati, OH (hybrid virtual and in-person event due to COVID-19) Keynote event sponsored by Buckeye Power Sales
June 16, 2021	Science for Design (selected panelist) Urban Land Institute OnPoint, Washington, DC (virtual event)



Oct 11, 2021 Balancing Infection Control, Quality of Life, and Resilience (invited faculty speaker), American Health Care Association / National Center for Assisted Living (AHCA/NCAL) 2021 Convention and Expo, Washington, DC (hybrid event due to COVID-19)  Oct 12, Advances in Brain Health (invited panelist) Panel event sponsored by Wolters Kluwer Health (virtual event)  Oct 14, Architectural Interventions in Healthcare: Ethical Challenges and Opportunities (selected panelist), American Society for Bioethics + Humanities (ASBH) Annual Meeting (virtual event due to COVID-19)  Feb 25, Ethical Obligations at their Nexus with Meeting (virtual presentation)  Feb 25, Ethical Obligations at their Nexus with Conference (virtual presentation)  Dec 8, Built Space, Association for Practical and Professional Ethics (APPE) Annual Conference (virtual presentation)  Dec 8, Built Environment Design Interventions at the Exits of Secured Dementia Care Units: A Review of the Empirical Literature (invited discussant)  Center for Health Design, National Journal Club (virtual event, 485 participants)  Jan 10, Exploring the Untapped Nexus of Ethics and Health Facility Design, University of Texas Southwestern Medical Center, Ethics Grand Rounds (invited presenter/virtual event)	July 20, 2021	Ethics and Design in the Long-Term Care Setting / Invited presentation and discussion with fellows (graduate students and young professionals from diverse healthcare disciplines). Jewish Hospital Foundation's 2021 Patient Safety Fellowship (offers a unique curriculum to explore the challenges and opportunities facing senior residential living and senior care). Pittsburgh, PA (virtual event)
2021 Panel event sponsored by Wolters Kluwer Health (virtual event)  Oct 14, Architectural Interventions in Healthcare: 2021 Ethical Challenges and Opportunities (selected panelist), American Society for Bioethics + Humanities (ASBH) Annual Meeting (virtual event due to COVID-19)  Feb 25, Ethical Obligations at their Nexus with 2022 Built Space, Association for Practical and Professional Ethics (APPE) Annual Conference (virtual presentation)  Dec 8, Built Environment Design Interventions at the Exits of Secured Dementia Care Units: A Review of the Empirical Literature (invited discussant)  Center for Health Design, National Journal Club (virtual event, 485 participants)  Jan 10, Exploring the Untapped Nexus of Ethics and Health Facility Design, University of Texas Southwestern Medical Center, Ethics Grand Rounds (invited presenter/virtual		Balancing Infection Control, Quality of Life, and Resilience (invited faculty speaker), American Health Care Association / National Center for Assisted Living (AHCA/NCAL) 2021 Convention and Expo, Washington, DC (hybrid event due to
2021 Ethical Challenges and Opportunities (selected panelist), American Society for Bioethics + Humanities (ASBH) Annual Meeting (virtual event due to COVID-19)  Feb 25, Ethical Obligations at their Nexus with 2022 Built Space, Association for Practical and Professional Ethics (APPE) Annual Conference (virtual presentation)  Dec 8, Built Environment Design Interventions at the Exits of Secured Dementia Care Units: A Review of the Empirical Literature (invited discussant) Center for Health Design, National Journal Club (virtual event, 485 participants)  Jan 10, Exploring the Untapped Nexus of Ethics and Health Facility Design, University of Texas Southwestern Medical Center, Ethics Grand Rounds (invited presenter/virtual		Panel event sponsored by Wolters Kluwer
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at the Exits of Secured Dementia Care Units: A Review of the Empirical Literature (invited discussant) Center for Health Design, National Journal Club (virtual event, 485 participants)  Jan 10, Exploring the Untapped Nexus of Ethics and Health Facility Design, University of Texas Southwestern Medical Center, Ethics Grand Rounds (invited presenter/virtual		Built Space, Association for Practical and Professional Ethics (APPE) Annual
2023 and Health Facility Design, University of Texas Southwestern Medical Center, Ethics Grand Rounds (invited presenter/virtual		at the Exits of Secured Dementia Care Units: A Review of the Empirical Literature (invited discussant) Center for Health Design, National Journal
	•	and Health Facility Design, University of Texas Southwestern Medical Center, Ethics Grand Rounds (invited presenter/virtual

### International

Patient & Family Preferences for the Design of a Palliative Care Unit, Design & Health 5th World Congress and Exhibition: International Academy for Design and Health, Glasgow, Scotland
The Winners and Future Trends: An Investigative Study, Design & Health 6th World Congress and Exhibition, International Academy for Design & Health, Singapore
Dochitect: An Architect's View of Health Design as a Resident Physician, International Union of Architects Public Health Group (UIA/PHG) 2013 Annual Healthcare Forum, Architecture Canada, Toronto, Canada
Universal Design for Healthcare (keynote), Center for Excellence in Universal Design, Dublin, Ireland
Critical Care Design of Tomorrow: How Technology Fits In, European Healthcare Design Congress, London, UK
Physician Engagement and Perspective in the Lean Facility Design Process, European Healthcare Design Congress, London, UK (conference converted to virtual event due to COVID-19)

April 28, 2021	Hospital(ity): New Directions in Healthcare Design, AZURE talks, part of Architect@ Work Canada Digital Summit, Toronto, Canada (virtual event due to COVID-19)
June 14, 2021	Caring for the City: 21st Century Health and Wellbeing (selected workshop), London Festival of Architecture 2021, London, UK (virtual event)
June 14, 2021	Deconstructing the hospital to save it (selected panel discussion), European Healthcare Design Congress, Awards & Exhibition, London, UK (virtual event due to COVID-19)
June 15, 2021	Environments for modern ward rounds for multidisciplinary inpatient review (selected panel discussion), European Healthcare Design Congress, Awards & Exhibition, London, UK (virtual event due to COVID-19)
June 16, 2021	Nursing home design and Covid-19: balancing infection control, quality of life, and resilience (selected panel discussion). European Healthcare Design Congress, Awards & Exhibition, London, UK (virtual event due to COVID-19)
June 17, 2021	How will Covid-19 change healthcare design? (selected panel discussion), European Healthcare Design Congress, Awards & Exhibition, London, UK (virtual event due to COVID-19)





The Future Hospital: Critical Care 2050
(invited panelist), SALUS TV Innovation Series, UK (virtual event)
Architectural Design as a Determinant of Health (invited keynote speaker), Royal Architectural Institute of Canada (RAIC) Long Term Care Working Group at the RAIC 2022 Virtual Conference on Architecture, Canada (virtual event due to COVID-19)
Bioethical Impacts at the Intersection of Healthcare and its Architecture, OpenLab (design and innovation shop dedicated to finding creative solutions that transform the way health care is delivered and experienced). University Health Network, Toronto, Canada (virtual event)
Architectural Design as a Determinant of Health (invited speaker), McGill University School of Architecture Brown Bag lecture series.





# **ACCOMPLISHMENTS - PUBLICATIONS**



### ORIGINAL, PEER REVIEWED ARTICLES

- Anderson DC. The Palliative Care Unit: Does Room Design Matter? University of Toronto Medical Journal 2007;84(3):183-189.
- Anderson DC, Menzies F. Designed for Discovery: The Terrence Donnelly Centre for Cellular and Biomolecular Research. CMAJ 2007, 177(3):272-273; DOI: 10.1503/ cmaj.070762
- Cadenhead CD, Anderson DC. Critical Care Unit Design, The Winners and Future Trends: An Investigative Study. World Health Design 2009;2(3):72-77.
- Anderson D. Humanizing the hospital: design lessons from a Finnish sanatorium. CMAJ 2010 Aug 10;182(11):E535-7. doi: 10.1503/cmaj.090075. Epub 2009 Sep 21. PMID: 19770238: PMCID: PMC2917967.
- Viets-Schmitz E, Anderson DC. Bridging the Gap: Multidisciplinary Collaboration in Medicine and Architecture. University of Toronto Medical Journal 2011;88(3):129-134.
- Anderson DC, Hamilton DK. Rx: Window Bed. Old Lives Tales. J Amer Geriatr Soc 2014;62(2):378-9. doi: 10.1111/jgs.12650. PMID: 24521367.
- Anderson DC, Postler TS, Dam TT. Epidemiology of Hospital System Patient Falls: A Retrospective Analysis. Am J Med Qual 2016 Sep;31(5):423-8. doi: 10.1177/1062860615581199. Epub 2015 Apr 8. PMID: 25855672.

- Halpern NA, Anderson DC, Kesecioglu J. ICU Design in 2050: looking into the crystal ball! Intensive Care Med 2017 May;43(5):690-692. doi: 10.1007/s00134-017-4728-x. Epub 2017 Mar 17. PMID: 28315042.
- Anderson DC, Jackson AA, Halpern NA. Informatics for the Modern Intensive Care Unit. Crit Care Nurs Q 2018 Jan/Mar;41(1):60-67. doi: 10.1097/ CNQ.0000000000000186. PMID: 29210767; PMCID: PMC7906092.
- Hamilton DK, Swaboda SM, Lee JT, Anderson DC. Decentralization: The Corridor Is the Problem, Not the Alcove. Crit Care Nurs Q 2018 Jan/Mar;41(1):3-9. doi: 10.1097/CNQ.000000000000181. PMID: 29210762.
- Anderson DC, Pang A, O'Neill D, Edelstein E. The convergence of architectural design and health. Lancet 2018;392(10163):p2432-2433. doi: 10.1016/S0140-6736(18)33009-5. PMID: 30527409.
- Anderson DC. Bricks and Morals—Hospital Buildings, Do No Harm. J Gen Intern Med 2018 Oct 25 [Epub ahead of print]; In print 2019; 34(2), 312-316. doi: 10.1007/s11606-018-4707-0. PMID: 30361916; PMCID: PMC6374259.
- Halpern NA, & Anderson DC. Keeping a 2009
   Design Award–Winning Intensive Care Unit Current:
   A 13-Year Case Study. HERD 2020 May 26: doi:
   10.1177/1937586720918225. Epub 2020 May 26.
   PMID: 32452232.
- Anderson DC, Jacoby SR, Scruth EA. The Intersection of Architecture/Medicine/Quality and the Clinical Nurse Specialist: Designing for the Prevention of Delirium. Clin Nurse Spec 2020 Jan/Feb;34(1):5-7. doi: 10.1097/ NUR.00000000000000492. PMID: 31789956.

- Block BL, Anderson D, O'Brien B, Babik J. (2020) Getting Neighborly in 2030: A Shared Fellow Workspace Improves Communication, Teaching, and Burnout. J Grad Med Educ 2020 Jun;12(3):358-360. doi: 10.4300/JGME-D-19-00820.1. PMID: 32595866; PMCID: PMC7301954.
- Anderson DC, Grey T, Kennelly S, O'Neill D. Nursing Home Design and COVID-19: Balancing Infection Control, Quality of Life, and Resilience. J Am Med Dir Assoc 2020 Nov;21(11):1519-1524. doi: 10.1016/j. jamda.2020.09.005. PMID: 33138934; PMCID: PMC7603995.
- Anderson DC, Teti SL, Hercules WJ, Deemer D. The Bioethics of Built Space: Healthcare Architecture as a Medical Intervention. The Hastings Center Report. March-April 2022. https://doi.org/10.1002/hast.1353

### LITERATURE REVIEWS

 Anderson DC, Kota SS, Yeh L, Budson AE. Built Environment Design Interventions at the Exits of Secured Dementia Care Units: A Review of the Empirical Literature. HERD: Health Environments Research & Design Journal. 2022;0(0). doi:10.1177/19375867221125930

# GUIDELINES/PROFESSIONAL ORGANIZATION SCIENTIFIC STATEMENTS

 Thompson DR, Hamilton DK, Cadenhead CD, Swoboda SM, Schwindel SM, Anderson DC, et al. Guidelines for Intensive Care Unit Design. ICU Design Guidelines Task Force, Committee of the American College of Critical Care Medicine, Society of Critical Care Medicine. Crit Care Med 2012 May;40(5):1586-600. PMID: 22511137.



### PEER REVIEWED WEB PUBLICATIONS AND VIDEOS

 Anderson D, Hercules B, Teti SL. (2021) The Bioethics of Built Health Care Spaces. The Hastings Center Bioethics Forum. <a href="https://www.thehastingscenter.org/">https://www.thehastingscenter.org/</a> the-bioethics-of-built-health-care-spaces/

### SCHOLARSHIP WITHOUT NAMED AUTHORSHIP

 Hamilton DK. (2022). Evidence, Bioethics, and Design for Health. HERD, 15(2), 13–21. <u>https://doi.org/10.1177/19375867221082774</u>

### **F**DITORIALS

 Bassin BS, Nagappan B, Sozener CB, Kota SS, Anderson DC. Widening the lens: Clinical perspectives on design thinking for public health. The Journal of Health Design 2020;(5)3.

### MEDICAL TEXTBOOKS CHAPTERS

- Anderson DC, Halpern NA. "Contemporary ICU Design" In Principles of Adult Surgical Critical Care. Eds: Neils D. Martin, Lewis J. Kaplan. Springer: Switzerland: 2016.
- Anderson DC, Halpern NA. "Design of the Intensive Care Unit and its Place within the Hospital" In Handbook of Intensive Care Organization and Management. Ed: Andrew Webb. UK:Imperial College Press;2016.
- Anderson DC, Halpern NA. "Intensive Care Unit Design: Current Standards and Future Trends" In Irwin and Rippe's Intensive Care Medicine, 8th Edition. China: Wolters Kluwer; 2017.

 Halpern NA, Bothwell LA, Anderson DC. Intensive Care Unit Design: Current Standards and Future Trends. Irwin and Rippe's Intensive Care Medicine, 9th Edition. Publisher Wolters Kluwer, India, 2022 (In press).

### BOOKS, BOOK CHAPTERS

- Cadenhead CD, Anderson DC, Uhlenhake R. "Critical Care Design – Lessons Learned From 16 Years of SCCM Award Winning Designs" In: Design for Critical Care: An Evidence-Based Approach. Eds: McCuskey Shepley M, & Hamilton, DK. UK: Architectural Press of Elsevier, 2009.
- Anderson DC. "Drafting Meets Doctoring" In get better! the pursuit of better health and better healthcare design at lower costs per capita: Proceedings of the 33rd UIA/ PHG International Seminar. Ed: Romano Del Nord. Italy: TESIS Inter-University Research Center, 2014.
- Anderson, DC. The Dochitect's Journal: A collection of writings on the intersection of Medicine and Architecture. Germany: LAMBERT Academic Publishing; 2017. ISBN: 978-620-2-05796-7.

### LETTERS TO THE EDITOR

- Anderson DC. Single-patient rooms for safe patientcentered hospitals. JAMA 2009;301(5):486. PMID: 19190312.
- Anderson DC. Lessons from Evidence-Based Medicine: What Healthcare Designers Can Learn From the Medical Field. HERD 2009;2(4):130-131. PMID: 21174892.
- Shaw PA, Anderson DC. A View From and On the Window. HERD 2014;7(4):137-141. doi: 10.1177/193758671400700412. PMID: 25303433.
- Anderson DC. Consider the Benefits of Virtual Windows for Clinicians and Healthcare Staff. HERD 2016;10(1):172-173. doi: 10.1177/1937586716666661. PMID: 27646997.
- Anderson DC, Trinder K, Mitchell K, Mitchell E. Architectural Armor: Preventative Biocidal Surfaces. HERD 2017;10(5):162-164. doi: 10.1177/1937586717725225. PMID: 29056094.

- Anderson DC. Drafting and doctoring. Letter to the Editor, The Globe and Mail. Posted online and in print May 31, 2019: <a href="https://www.theglobeandmail.com/opinion/letters/article-may-31-bravery-and-sacrifice-plus-other-letters-to-the-editor/">https://www.theglobeandmail.com/opinion/letters/article-may-31-bravery-and-sacrifice-plus-other-letters-to-the-editor/</a>
- Sharma N, Anderson DC. Covid-19: pandemic healthcare centres should have already existed. BMJ 2020;369:m1700. doi: 10.1136/bmj.m1700. PMID: 32354760.

# NON-PEER REVIEWED SCHOLARSHIP IN PRINT OR OTHER MEDIA

- 1. **Anderson DC**. Commentary: Single-Patient Room Design. World Health Design 2008;(1)3:20-21.
- 2. **Anderson DC**, Egdorf K. Valuable Resource: A Fellowship Experience. CRIT (Journal of the American Institute of Architecture Students) Fall 2009; Issue 68.
- Anderson DC, Sansom M. Local Identity, Global Perspective: Review of the International Academy's 6th World Congress and Exhibition. World Health Design 2009;2(3):14-17.
- Anderson DC. Icons: Review of Healthcare Design 08 Conference. World Health Design 2009;4(1):10-5.
   Anderson DC, Todd SR. Designing for Multidisciplinary Rounding Practices in the Critical Care Setting. World Health Design 2011;4(2):80-85.
- Anderson DC. Commentary: What are the opportunities for design in helping to address the key health reform challenges in the US versus Canada. World Health Design 2011;4(2):14-15.
- Anderson DC, Hamilton DK. Evidence-Based Design: Bridging the Gap for Healthier Hospital Buildings. BMJ Careers 2013:347:4-5.
- Anderson DC. New Medical Staffing Procedures Call For Design Solutions. Healthcare Design Magazine 2013;13(9):13.
- 8. **Anderson DC**, et al. What will the ICU of the Future Look Like? Society of Critical Care Medicine- Critical Connections 2013;12(6):10-11.
- Anderson DC. The Ethics of Healthcare Architecture. Architecture Ireland Jan/Feb 2019; 16-19.







- Hercules W, Anderson DC, Sansom M. Open Letter to Policy Makers: Architecture—A Critical Ingredient of Pandemic Medicine. The architecture of patient environments is a critical component of saving lives. Architect Magazine Posted online March 24, 2020: <a href="https://www.architectmagazine.com/practice/architecture-is-a-critical-ingredient-of-pandemic-medicine">https://www.architectmagazine.com/practice/architecture-is-a-critical-ingredient-of-pandemic-medicine</a> o
- Anderson D, Holmes M. How will COVID-19
   Change Healthcare Design? Design Museum
   Magazine, Healthcare Issue 017, Winter 2020. In print and online: <a href="https://designmuseumfoundation.org/how-will-covid-19-change-healthcare-design/">https://designmuseumfoundation.org/how-will-covid-19-change-healthcare-design/</a>
- Hercules WJ, Anderson DC, Teti SL, Deemer D. Architecture and Bioethics: A new value proposition for health care facility designers. Health Facilities Management Magazine. Posted online February 5, 2022. <a href="https://digital.hfmmagazine.com/?shareKey=7kh1GT">https://digital.hfmmagazine.com/?shareKey=7kh1GT</a>

### EXPERT TESTIMONY

- Anderson DC, Ahmed A. Ontario's Long-Term Care COVID-19 Commission Meeting, pp 1-79, February 10, 2021. <a href="http://ltccommission-commissionsld.ca/cm/index.html">http://ltccommission-commissionsld.ca/cm/index.html</a>
  - Mandate to investigate how and why COVID-19 spread in long-term care homes, what was done to prevent the spread, and the impact of key elements of the existing system on the spread)

# SELECTED MEDIA: NEWSPAPERS, VIDEO, RADIO, TV, BLOGS, PODCASTS

- Anderson DC. New Medical Staffing Procedures
   Call For Design Solutions. Healthcare Design
   Magazine. Posted online October 11, 2013: <a href="http://www.healthcaredesignmagazine.com/blogs/diana-anderson/new-medical-staffing-procedures-call-design-solutions">http://www.healthcaredesignmagazine.com/blogs/diana-anderson/new-medical-staffing-procedures-call-design-solutions</a>
- Healthcare Design and Construction Webcast Series. Lean Planning & Design Innovation. April 2, 2014. Broadcast to multiple U.S. cities. Role: to discuss ways of making the daily process of clinical information gathering more efficient through design.
- The Doctor Paradox Podcast. The "Dochitect"- Where Medicine & Architecture Meet. Posted online June 19, 2016: http://thedoctorparadox.com/dianaanderson/
- Virtual Windows and Beyond: Design solutions to improve the mental health of clinical staff. 6th Annual Mental Health Symposium, hosted by Virtual Ability. May 27, 2017: <a href="http://blog.virtualability.org/">http://blog.virtualability.org/</a>
- The Drax Files Radio Hour. Invited guest on show #151: mental health in a virtual world.
   May 27, 2017: <a href="https://draxfiles.com/2017/05/27/show-151-mental-health-in-a-virtual-world/">https://draxfiles.com/2017/05/27/show-151-mental-health-in-a-virtual-world/</a>
- Mesko B (The Medical Futurist) & Anderson DC. Peek into the Future of Hospitals: Smart Design, Technologies and Our Homes. Posted online June 8, 2017: <a href="https://www.linkedin.com/pulse/peek-future-hospitals-smart-design-technologies-our-mesk%C3%B3-md-phd">https://www.linkedin.com/pulse/peek-future-hospitals-smart-design-technologies-our-mesk%C3%B3-md-phd</a>
- Geriatric Care at the Intersection of Medicine and Architecture. Regional Geriatric Program of Toronto, Webinar. February 27, 2018. <a href="https://www.eventbrite.ca/e/rgp-network-webinar-geriatric-care-at-the-intersection-of-medicine-and-architecture-registration-42041042891">https://www.eventbrite.ca/e/rgp-network-webinar-geriatric-care-at-the-intersection-of-medicine-and-architecture-registration-42041042891</a>
- Anderson DC. There Remains a Fundamental Gap
  Between the Aims of Hospital Design and the Final
  User Experience. The BMJ Opinion Blog. Posted online
  March 12, 2018: <a href="http://blogs.bmj.com/bmj/2018/03/12/diana-anderson-there-remains-a-fundamental-gap-between-the-aims-of-hospital-design-and-the-final-user-experience/">http://blogs.bmj.com/bmj/2018/03/12/diana-anderson-there-remains-a-fundamental-gap-between-the-aims-of-hospital-design-and-the-final-user-experience/</a>

- PeerSpectrum Podcast (explores the unsettled edges of medicine). Extreme Makeover: Hospital Edition. Physician & Architect, Dr. Diana Anderson. Posted online September 18, 2018: <a href="https://peerspectrum.com/2018/09/18/extreme-makeover-hospital-edition-physician-architect-dr-diana-anderson/">https://peerspectrum.com/2018/09/18/extreme-makeover-hospital-edition-physician-architect-dr-diana-anderson/</a>
- "Dochitect" who combines medicine and architecture. The Journal of Health Design Podcast. Posted online September 4, 2019: <a href="https://www.journalofhealthdesign.com/JHD/podcasts/view/207">https://www.journalofhealthdesign.com/JHD/podcasts/view/207</a>
- Anderson DC, Makin K. Why your practice needs a makeover. KevinMD.com Posted online December 6, 2018: <a href="https://www.kevinmd.com/blog/post-author/diana-anderson-and-keith-mankin">https://www.kevinmd.com/blog/post-author/diana-anderson-and-keith-mankin</a>
- 12. **Anderson DC**. Five lessons from architectural design. Posted online at CLOSLER.org (Johns Hopkins Medicine) on December 11, 2018: <a href="http://closler.org/lifelong-learning-in-clinical-excellence/five-lessons-from-architectural-design">http://closler.org/lifelong-learning-in-clinical-excellence/five-lessons-from-architectural-design</a>
- Anderson DC. Patients' families are more than just 'visitors'. Montreal Gazette. Published online June 24, 2019 and in print June 25, 2019: <a href="https://montrealgazette.com/opinion/opinion-patients-families-are-more-than-just-visitors/">https://montrealgazette.com/opinion/ opinion-patients-families-are-more-than-just-visitors/</a>
- 14. **Anderson DC**. Is hospital design equitable? Posted online at CLOSLER.org (Johns Hopkins Medicine) on September 16, 2019: <a href="http://closler.org/lifelong-learning-in-clinical-excellence/">http://closler.org/lifelong-learning-in-clinical-excellence/</a> is-hospital-design-equitable
- Geripal Podcast. A geriatrics and palliative care blog. Posted online October 17, 2019: <a href="https://www.geripal.org/2019/10/architecture-and-medicine-podcast-with.html">https://www.geripal.org/2019/10/architecture-and-medicine-podcast-with.html</a>
- 16. Anderson DC. Clinic room designs must fit care models. The Medical Post, Canadian Healthcare Network. Posted online October 9, 2019: <a href="http://www.canadianhealthcarenetwork.ca/27912-2">http://www.canadianhealthcarenetwork.ca/27912-2</a> 57185?utm source=EmailMarketing&utm medium=email&utm campaign=Physician Newsletter&oly enc id=1561J8058434B6F



Diana is interviewed by Louise Aronson, MD, for her New York Times article on building design for older people. November, 2014.

- 17. Healthcare Interior Design 2.0 Podcast. Posted online November 11, 2019: <a href="https://www.porcelanosa-usa.com/healthcare-interior-design-2-0-dr-diana-anderson-md/">https://www.porcelanosa-usa.com/healthcare-interior-design-2-0-dr-diana-anderson-md/</a>
- Anderson DC. Ethical Dilemmas in Dementia Care Design. Posted online at CLOSLER.org (Johns Hopkins Medicine) on January 27, 2020: <a href="https://closler.org/lifelong-learning-in-clinical-excellence/ethical-dilemmas-in-dementia-care-design">https://closler.org/lifelong-learning-in-clinical-excellence/ethical-dilemmas-in-dementia-care-design</a>
- Paging the Engineers and Architects, STAT! The emergence of the hybrid clinician. Clinician Engineer Webinar Series. Posted online May 16, 2020: <a href="https://www.youtube.com/watch?v=CJ7a3ongT9I">https://www.youtube.com/watch?v=CJ7a3ongT9I</a>
- Fix Room 16! Designing Healthcare Facilities to be More Resilient & Equitable. Design is Everywhere, Design Museum podcast. Guest co-host. Posted online May 29, 2020: <a href="https://designmuseumfoundation.org/006-fix-room-16/">https://designmuseumfoundation.org/006-fix-room-16/</a>
- Designing for Health: COVID-19 + the Future of Senior Living Architecture. 2020 AIASF Design for Aging Symposium. Invited panelist. Posted online August 13, 2020: <a href="https://aiasf.org/events/2020-aiasf-dfa-symposium">https://aiasf.org/events/2020-aiasf-dfa-symposium</a>
- Widening the Lens: Clinical Perspectives on Design Thinking in Public Health. The Journal of Health Design Podcast. Posted online August 20, 2020: <a href="https://www.journalofhealthdesign.com/JHD/podcasts/view/306">https://www.journalofhealthdesign.com/JHD/podcasts/view/306</a>

- 23. Designing the Long-Term Care Home for COVID and Beyond. AvantAge Ontario (association of not-for-profit long term care, housing, and services for seniors) Webinar. August 31, 2020. <a href="http://www.advantageontario.ca/AAO/Learning/Learning-COVID-19/Designing-the-Long-Term-Care-Home-for-COVID-and-Beyond.aspx?WebsiteKey=00bad89a-d342-4c6e-bc0c-b4b493c5462c">http://www.advantageontario.ca/AAO/Learning/Learning-COVID-19/Designing-the-Long-Term-Care-Home-for-COVID-and-Beyond.aspx?WebsiteKey=00bad89a-d342-4c6e-bc0c-b4b493c5462c</a>
- 24. Anderson DC. Resilient Design in Healthcare Will Affect Pandemic Response. HealthTech Magazine. Invited guest column. Posted online September 14, 2020: <a href="https://healthtechmagazine.net/article/2020/09/resilient-design-healthcare-will-affect-pandemic-response">https://healthtechmagazine.net/article/2020/09/resilient-design-healthcare-will-affect-pandemic-response</a>
- A New Peace of Mind a podcast episode on the changing meaning of security in 2020, including our health. Pacific Content. September 22, 2020. <a href="https://invisibleforces.simplecast.com/">https://invisibleforces.simplecast.com/</a> episodes/a-new-peace-of-mind
- Episode 12 Dr. Diana Anderson. Doctor Hustle Podcast - the podcast aims to showcase the entrepreneurial, creative, and leadership skills of the medical community. October 1, 2020. <a href="https://doctorhustle.com/episode-12-dr-diana-anderson/">https://doctorhustle.com/episode-12-dr-diana-anderson/</a>
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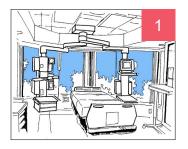


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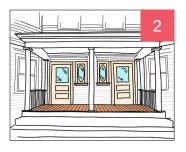


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# LIST OF EXHIBITS



**Critical Care Unit Design Expert**Category: Literature - writing and speaking



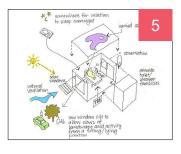
Alzheimer's Association Clinical Scientist Fellowship Awardee Category: Research - formal investigation



American Institute of Architects COVID-19 Response Leadership Categories: Literature and Education



**Bioethics of Built Space Expert** Category: Literature - writing and speaking



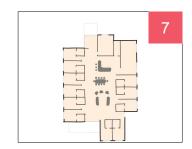
Research Leader for Healthcare Design Project Work

Categories: Research and Education



Co-founder of Clinicians for Design

Categories: Education and Literature



Long-Term Care Design - Expert Testimony

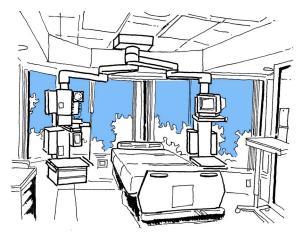
Categories: Research and Education



### **Mentorship of the Medicine-Architecture Model**

Categories: Education - mentoring

# CRITICAL CARE UNIT DESIGN EXPERT



Critical care unit, Legacy Good Samaritan Hospital in Portland OR. Sketch by: Diana Anderson, published in Design for Critical Care: An Evidence-Based Approach, 2009

### CHALLENGE

A growing body of quality evidence around healthcare facility designs and their impact on patient, family and staff experience in the adult and pediatric intensive care unit (ICU) has emphasized the need for a multidisciplinary team approach in ICU design.

Over the last few decades, the physical design of the ICU environment has transformed to incorporate innovations and technology to provide quality and safe patient care.

Design guidelines and peer reviewed literature have been sought by health systems, clinical teams, and architects to guide them in new construction and renovation decisions.

While experimental studies in physical environments with multiple variables, including human behavior, have been challenging to undertake, they are crucial for an evidence-based design process. Diana is one of the few clinician-scientists who is undertaking them.

### ○ Nominee's Role

A leader in evidence-based ICU design publications and guidelines, Diana's work has emphasized the importance of design in care delivery and clinical operations in these medically complex settings:

- An invited contributor by several medical textbook editors to provide a chapter on ICU design- the importance of design knowledge for ICU staff is being increasingly recognized.
- A co-author of the 2012 Guidelines for Intensive Care Unit Design, published in Critical Care Medicine and a 2013 SCCM Section Award Winner for published guidelines.
- An invited co-chair of the SCCM 2024 ICU design guidelines to update the optimum performance standards, describe the current evidence, and serve as a reference for healthcare institutions worldwide wishing to design a new ICU or modify an existing one.
- Based on her publication record, Mass General Brigham has funded Diana to lead a research study to determine if built environment factors are impacting rates of delirium.

### Оитсоме

Since publication of the 2012 Guidelines, it has become evident that they serve and support the interest of an international audience.

Readings and requests for the Guidelines have reached significant numbers- they have been viewed over 15,000 times in the last 5 years alone, and cited by 271 other peer reviewed publications.

It is expected that the 2024 guidelines will gain even more interest. Diana's publications and research have gained her international reputation in ICU design expertise.



5 year article level metrics for the 2012 Guidelines for intensive care unit design, as cited by Critical Care Medicine Journal: https://journals.lww.com/ccmjournal/fulltext/2012/05000/Guidelines\_for\_intensive\_care\_unit\_design\_.26.aspx

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### **ICU** DESIGN GUIDELINES

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- \* The ICU Design Guidelines have been cited 276 times by other peer reviewed publications (source: google scholar)
- \*\*2013 Section Award Winner (published guidelines for intensive care unit design), Society of Critical Care Medicine (SCCM)



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Halpern NA, Scruth E, Rausen M, Anderson D. Four Decades of Intensive Care Unit Design Evolution and Thoughts for the Future. Critical Care Clinics 2023 March 27. (Accepted/In press).

### Four Decades of Intensive Care Unit Design Evolution and Thoughts for the Future

Neil A. Halpern, MD, MCCM, FCCP, FACPa,b,\*, Elizabeth Scruth, PhD, MPH, RN, CNS, CCRN-K, CCNS, FCCM, FCNS, CPHQC, Michelle Rausen, MS, RRT, RRT-NPS<sup>d</sup>, Diana Anderson, MD, MArch

Case Study **<**■> THE CENTER FOR HEALTH DESIGN Keeping a 2009 Design Award-Winning Intensive Care sagepub.com/journals-permissions DOI: 10.1177/1937586720918225 Unit Current: A 13-Year Case Study (\$)SAGE

Neil A. Halpern, MD, MCCM, FACP, FCCP<sup>1,2</sup>, and Diana C. Anderson, MD, ACHA3,

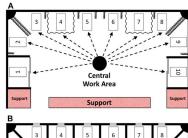
### MEDICAL TEXTBOOK CHAPTERS

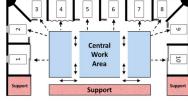
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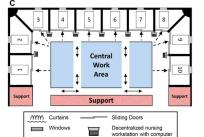
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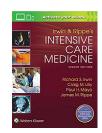




Graphic developed for Critical Care Clinics article (2023, in press) in order to explain a major transformative ICU design change to clinicians: the evolution from an open space to ICUs with single (private) patient rooms









### RESEARCH PROJECTS

Intensive Care Unit Design & Delirium, Mass General Brigham Internal Funding Award, Boston, MA Funding: \$200.000 USD over 2 years Role: Co-PI

This study will characterize the ICU environment and consolidate known data on delirium (an acute confusional state that often occurs within hospitals) and the built environment factors which may play a role in its onset and severity.



### HEALTHCARE DESIGN BOOK CHAPTER

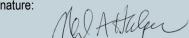
Cadenhead CD, Anderson DC, Uhlenhake Design for Critical Care R. "Critical Care Design - Lessons Learned From 16 Years of SCCM Award Winning Designs" In: Design for Critical Care: An Evidence-Based Approach. Eds: McCuskey Shepley M, & Hamilton, DK. UK: Architectural Press of Elsevier, 2009.



### **Declaration of Responsibility**

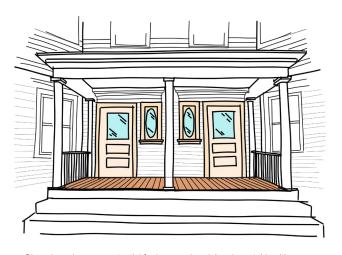
I have personal knowledge of the nominee's responsibility for the project listed above. That responsibility included researching, co-authoring, and editing manuscripts and textbook chapters. and participating on the SCCM ICU Design Guidelines documents.

Name: Neil A. Halpern, MD, MCCM, FCCP, FACP Title: Director, Critical Care Center; Chief, Critical Care Medicine Service: Memorial Sloan Kettering Cancer Center, NY Signature:



# Diana Anderson

## ALZHEIMER'S ASSOCIATION CLINICAL SCIENTIST FELLOWSHIP AWARDEE



Shared porch space: potential for improved social and mental health outcomes for community-dwelling older adults. Sketch by: Shari Blanch

### CHALLENGE

The built environment is increasingly recognized for its impact on mental and social health. Transitional spaces in our homes and communities such as parks, outdoor seating, and porches, yards, and bay windows (Figure 1. a-d.) offer individuals opportunities for physical activity as well as social engagement, but access may be more difficult for older adults with cognitive impairments.

For older adults who increasingly stay in the home, these spaces may allow ways of engaging with the surrounding social landscape, promoting benefit and mitigating effects of isolation. Although evidence-based design continues to demonstrate health effects of acute care health environments (e.g.: hospitals, clinics, long term care), research identifying how built environment factors impact social and mental health in older adults with and without dementia is needed.

This research will identify relationships between the built environment and health outcomes in older adults with and without ADRD. We predict that greater use of residential transitional design features (such as windows) and greater



a. shared public space

b. shared porch





c. enclosed, open porches

d. bay window vantage

Figure 1

Examples of outdoor public and semi-private transitional spaces (photographs by Diana Anderson for the AACSF grant application)

access to outdoor communal spaces (such as parks) will be associated with more positive health outcomes (e.g., lower depression, loneliness).

The goal of this research study is to gain a better understanding of:

(1) how older adults access and engage with their surrounding environment at home and communities levels, and; (2) how that engagement of transitional spaces at these two levels impacts social isolation, loneliness, mood, anxiety, and cognitive function in older adults with and without Alzheimer's disease and related dementias (ADRD) over time.

Recognizing the built environment's role in social connections, mental health, and cognition is imperative in developing and designing opportunities for improving the lives of older adults, with and without ADRD.

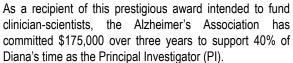
"Dr. Anderson is a highly innovative clinician... developing a unique area of research that will contribute towards impactful and meaningful changes for older adults at risk of [Alzheimer's disease and related dementias] ADRDs."

-grant reviewer #1

"These are very interesting [research] questions with clear possible impact. Dr. Anderson is well suited to answer these questions."

-grant reviewer #2

# Nominee's Role



As PI, she is leading this research endeavour and has designed, built, and tested a novel environmental survey tool assessing both community and home design features and their uses (e.g., windows, porches).

The project will produce several data-driven, peer reviewed publications which will be accessible by the clinical and design communities.





### **O**UTCOME

Initial Study Data: 77 older adults completed the study, ranging in age from 62 to 95 years.

Preliminary results demonstrate that the built environment correlates highly with social isolation. Individuals with greater access to public outdoor spaces demonstrated lower anxiety (p=.020), less isolation (p<.0001), and less loneliness (p<.01) (Figure 2.a.).

In addition, 58% of individuals report they frequently look out the window while in their home—these individuals experience significantly less depressive symptoms (p = .047) (Figure 2.b.).

The transitional spaces project will have long ranging implications and will advance our understanding of how community and home built environments impact social and mental health, and identify interventions to improve the well-being of those living with ADRD.

Results will have the potential to inform design guidelines and building standards, in addition to guide therapeutic lifestyle counseling interventions within the clinical setting on use of existing home and community space.



Question Examples	Most frequent responses
Example of questions about outdoor space access:	
What public outdoor spaces are accessible to you within your community? What private or semi-private outdoor spaces are accessible to you from your home?	75% (park or green space) 64% (front yard) 64% (back yard)
Example of questions about the most used outdoor space:	
Which of these outdoor spaces do you use the most?  Can you see any trees when you are in this outdoor space?	17% (front yard) 17% (back yard) 17% (balcony) 92% (yes)
Before*: how often would you use this outdoor space by yourself? Since*: Do you use this outdoor space differently?  Do you spend more, less or the same amount of time in this outdoor space?	44% (more than once/day) 81% (no) 52% (same amount of time)
Example of questions about the most used indoor space at hor	me:
Which room do you spend the most time in during the day?  Are there any windows that you look out from when in this room?	27% (living room) 25% (kitchen) 92% (yes)
Example of questions about window usage:	
Is there a place to sit in front of the window? Can you see any trees when you look out from the window? Which best describes the view from your window?	77% (yes) 93% (yes) 52% (garden or yard)
Before*: How often do you look out from your window by yourself? Since*: Do you use this room with a window differently? Do you spend more, less or the same amount of time at the window?	51% (frequently) 89% (no) 61% (same amount of time)

Transitional Spaces Survey developed for this research study: select questions and responses 9N=77). \*Questions framed with reference to COVID-19

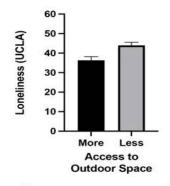


Figure 2.a



Figure 2.b

AACSF pilot data showing relationship between space design and health outcome measures

"Environmental design is a research area of great interest in supporting the quality of life for individuals with dementia, and therefore of paramount importance to the Alzheimer's Association. We are proud to support Dr. Anderson's work in answering questions about the significance of community and environment to older adults."

-Stefania Forner, PhD



The physical determinants of health which are now being increasingly recognized and studied: Diana has increased visibility and advocacy around these factors. Image credit: Diana Anderson.

### **Declaration of Responsibility**

I have personal knowledge of the nominee's responsibility for the project listed above. That responsibility included acting as Principal Investigator for a multi-year research study which is still underway- this includes managing grant funds, coordinating research staff, data collection, data analysis, and manuscript preparation.

Name: Stefania Forner, PhD

Title: Director, Medical & Scientific Relations,

Alzheimer's Association

Signature:

faria foren

AIA COVID-19 RESPONSE LEADERSHIP

Nominee's Role

OUTCOME

The task force's alternate care site checklist included recommendations from various agencies, such as the Centers for Disease Control and Prevention and the United States Army Corps of Engineers.

The tool was selected for international distribution by the United States Department of State, which translated the guide into Spanish, French, and Portuguese for sharing with embassies around the world as American best-practice guidance.



Sketch representing a critically ill patient in a hospital setting Intensive Care Unit. Sketch by: Diana Anderson



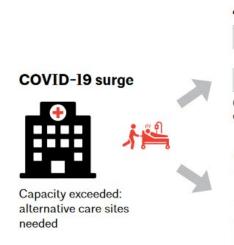
### CHALLENGE

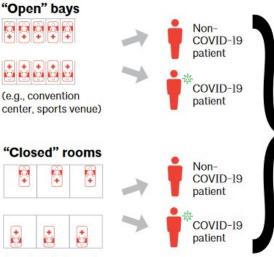
In the early phase of the COVID-19 pandemic, the American Institute of Architects (AIA) established the AIA COVID-19 Task Force to explore the role of architects and the built environment during the COVID-19 crisis, chaired by Dr. Molly Scanlon, FAIA, FACHA. Given her clinical and design experience, Diana was an invited member of both the primary Task Force and the Front Line Working Group.

While there was an unprecedented need for the adaptive reuse of buildings, there was no consistent technical or operational guidance for these alternative care sites. The "Preparedness Assessment Tool" developed by the task force, offered guidance for how existing spaces could be converted for temporary hospital use.

Diana's involvement in this advocacy effort speaks to the responsive roles of architects and caregivers during the COVID-19 outbreak. She saw the role of the built environment as a critical part of pandemic solutions and emergency preparedness, and those that create these environments contribute to the success of curative efforts.

As a hybrid professional, Diana is in a unique position to leverage advanced problem-solving skills to bring forth ideas for public health implementation.





Tool 1: Checklist

Tool 2: Projects database

(e.g., hotels, dorms)

Figure 1 from the AIA white paper "COVID-19 alternative care sites" demonstrating a visual abstract of health impacts during the pandemic



### AIA COVID-19 TASK FORCE PRODUCTS

White paper: COVID-19 Frontline Perspective Design considerations to reduce risk and support patients and providers in facilities for COVID-19 care. Written by the Front Line Working Group of the AIA COVID-19 Task Force in the early phase of the COVID-19 crisis from February to April 2020 for the American Institute of Architects (AIA)

**Position paper:** COVID-19 alternative care sites: Addressing capacity, safety, & risk challenges for our nation's hospitals during a public health pandemic response. Produced by the AIA COVID-19 Task Force to explore the role of architects and the built environment during the COVID-19 crisis.

**Design checklist:** Preparedness Assessment Tool V2.0 (translated from English into French, Portuguese, and Spanish)



"The [Preparedness Assessment Tool] was recently selected for international distribution by the United States Department of State, which has translated the guide into Spanish, French, and Portuguese for sharing with "embassies around the world.""

Pacheco A. Updated Alternative Care Site tool developed by AIA to be distributed internationally by US Department of State Archinect News. May 11, 2020.

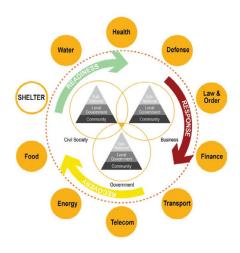


Figure 2 from the AIA white paper "COVID-19 alternative care sites" demonstrating whole-of-society pandemic readiness (adapted from the WHO)

AIA COVID-19 Task Fi June 22, 2020	
	Force 1: Health Impact Briefing #2
Design co and suppo	19 Frontline Perspective onsiderations to reduce risk ort patients and providers in for COVID-19 care

reparedness Assessment ol V2.0
preparedness assessment tool contains information synthesized non-crisis situations (design principles, available supporting none, or translation of applicable standards in combination with all documents issued during the COVID-19 crisis. The content was are with jibint professional injust from trained and experienced h care architects, designers, engineers, scientists, life-safety ultants, healthcare professionals, and hospital facility operations.

April 6, 2020

The American

2.1 Concept for operations	Yes/Agreed
Patient level of care is identified as:	
- ambulatory (capable of self-preservation)	
- acute (incapable of self-preservation)	
- critical (requiring life support/mechanical ventilation)	
Patient diagnosis for treatment has been identified:	
- COVID-19 positive (COVID)	
- COVID-19 negative (non-COVID)	
2.2 On-site patient care	
2.2.1 Site selection/location	
Site is in close proximity to first responders.	
Site is convenient to a hospital.	
2.2.2 Isolate COVID-19 operations	
COVID-related operations can be separated from other activities in the facility.	
2.2.3 Patient spaces are sized to accommodate:	
A projected number ofoccupants, with:	
- direct or remote patient monitoring	
- patient privacy	
<ul> <li>daylight allowed in patient space (windows in patient rooms preferred)</li> </ul>	
- patient toileting	
- handwashing sink for staff	

Excerpt from the AIA Preparedness Assessment Tool

### **Declaration of Responsibility**

I have personal knowledge of the nominee's responsibility for the project listed above. That responsibility included participation as a task force member during the COVID-19 pandemic to research, discuss, and write two white paper documents in order to assist the public health response.

Name: Kirsten Waltz AIA, FACHA, EDAC, LEED AP

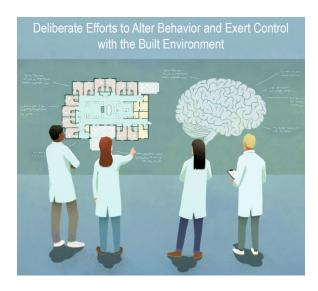
Title: Senior Director Architecture & Planning, John

Hopkins Health System

Signature:

Diana Anderson

# BIOETHICS OF BUILT SPACE EXPERT



Architectural design can impact the brain, and specifically can be used as a non-pharmacologic strategy to lessen challenging behaviors and psychological symptoms seen in neurodegenerative conditions such as dementia. Graphic by: Stowe Locke Teti

### **C**HALLENGE

While the social determinants of health have gained increasing importance in the clinical and bioethics communities, the physical determinants of health remain an understudied and under recognized area.

- The architectural design of hospitals and longterm care facilities can have profound effects on patients' freedom, patient outcomes, and clinicians' performance.
- Because certain aspects of these built environments are akin to medical interventions, these design elements require ethical scrutiny and empirical study.
- They also give rise to new moral obligations to patients at the individual and population levels.



Nominee's Role

While completing her fellowship at the Harvard Medical School Center for Bioethics, Diana actively participated in the revisions of the ACHA Code of Ethics, emphasizing the moral imperative to ensure healthcare buildings do no harm and improve health.

She also initiated a like-minded group of individuals to explore the bioethics of built space through speaking engagements and published articles – the first of its kind to bring this topic to the forefront of the bioethics and professional architecture arenas.

"Thank you all for the great opportunity to interact with you. It was a real privilege to be on stage with you all. This is an exciting field and we'd love to collaborate if the opportunity arose."

- Pierre Barker, MD, Chief Scientific Officer, Institute for Healthcare Improvement

"I think I speak for all of us at the consortium when I say we really couldn't have asked for a better way to begin 2023 in the organizational ethics series. Today's session modeled the kind of interdisciplinary discussion and toggling between "big idea" and "practical development" exchange that the consortium has always aspired to support... the examples and the questions you raised were powerful and extremely clear. I have already heard them brought up in two meetings by individuals who attended the event earlier today."

- Kelsey N. Berry, PhD, Co-Chair, Organizational Ethics Consortium, Harvard Medical School Center for Bioethics



# 8

### **O**UTCOME

Diana was lead author for a landmark publication introducing the notion of the built environment as a medical intervention, a hypothesis that was substantiated with evidence and examples and became the cover story in the Hastings Center Report.

The Hastings Center is among the most prestigious bioethics and health policy institutes in the world, and through its publications, it aims to influence the ideas of health policymakers, regulators, health care professionals, etc.

The publication led to an invitation by the Harvard Medical School Center for Bioethics to lead a consortium alongside the Institute for Healthcare Improvement (IHI), in order to consider how health systems can measure outcomes and provide ethical oversight to built environment decisions. Additionally, this work has been published (written and spoken) 14 more times globally.

Diana's work in this arena has wide-reaching implications at the policy and public health scales, with the potential to change the way health systems and public health agencies approach the built environment, and increase the architects' advocacy role for health.



### REPRESENTATIVE PUBLICATIONS

Anderson DC. Bricks and Morals—Hospital Buildings, Do No Harm. J Gen Intern Med 2018 Oct 25 [Epub ahead of print]; In print 2019; 34(2), 312-316.

**Anderson DC**, Teti SL, Hercules WJ, Deemer D. The Bioethics of Built Space: Healthcare Architecture as a Medical Intervention. The Hastings Center Report. March-April 2022.

**Anderson DC**, Hercules B, Teti SL. (2021) The Bioethics of Built Health Care Spaces. The Hastings Center Bioethics Forum. https://www.thehastingscenter.org/the-bioethics-of-built-health-care-spaces/

Hamilton DK. (2022). Evidence, Bioethics, and Design for Health. HERD, 15(2), 13–21.

Hercules WJ, **Anderson DC**, Teti SL, Deemer D. Architecture and Bioethics: A new value proposition for health care facility designers. Health Facilities Management Magazine. Posted online February 5, 2022.











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### REPRESENTATIVE SPEAKING ENGAGEMENTS

If Architecture Influences Health Outcomes, How Should Healthcare Systems Respond? Bioethics at the Frontier of the Science of Design. Harvard Medical School Center for Bioethics, Organizational Ethics Consortium, Boston, MA. January 20, 2023.

Ethical Obligations at their Nexus with Built Space, Association for Practical and Professional Ethics (APPE) Annual Conference (virtual presentation). Feb 25, 2022.

Exploring the Untapped Nexus of Ethics and Health Facility Design, University of Texas Southwestern Medical Center, Ethics Grand Rounds (invited presenter/virtual event). Jan 10, 2023.

Architectural Interventions in Healthcare: Ethical Challenges and Opportunities (selected panelist), American Society for Bioethics + Humanities (ASBH) Annual Meeting (virtual event due to COVID-19). Oct 14, 2021.

The Bioethics of Built Space: On the Shared Responsibilities of Bioethics and Architecture (selected panelist), American Society for Bioethics + Humanities (ASBH) Annual Meeting (virtual event due to COVID-19). Oct 16, 2020.

Healthcare Architecture: A Moral Imperative (invited speaker), Johns Hopkins Berman School of Bioethics Seminar Series, Baltimore, MD. Jan 27, 2020.

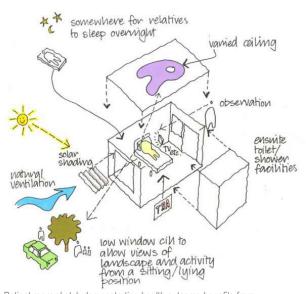
### **Declaration of Responsibility**

I have personal knowledge of the nominee's responsibility for the project listed above. That responsibility included participating in weekly meetings over several years, leading manuscript preparation for various publications, and preparing presentations for various conferences across the medicine, bioethics and design disciplines.

Name: Stowe Locke Teti
Title: Clinical Ethicist, Inova Fairfax Medical
Campus; Editor-in-Chief, Pediatric Ethicscope
Signature:

# Diana Anderson

# RESEARCH LEADER FOR HEALTHCARE DESIGN PROJECT WORK



Patient room sketch demonstrating health outcome benefits from integrated evidence. Sketch by Sean Woodhead, BDP Architects (SALUS Consortium)

CHALLENGE

With a rapidly growing population the State of Queensland was undertaking a wide range of hospital investments in new and replacement health facilities. The new Children's Hospital had recently been completed and the Gold University Coast Hospital was in the process of design finalization. For the new Sunshine Coast University Hospital, a new delivery model for the region of Public Private Partnership (P3) procurement had been selected with a focus on both operational and clinical efficiency.

As a differentiator, the Salus P3 consortia was seeking to bring evidence-based decision-making for the design of the 738-bed tertiary care academic and research-based hospital located on a 20-hectare green field site on the Sunshine Coast. Additionally, Diana's personal goals included improving the client's understanding and value of the evidence-based design process.

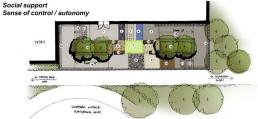
Project Name	Sunshine Coast University Hospital (SCUH), Sunshine Coast, Queensland, Australia Proposal for Public Private Partnership (P3) procurement & delivery model
SALUS Consortium	Hames Sharley Architects, Brisbane BDP Architects, UK Design Inc, Architects, Brisbane SKM (Jacobs) Engineering, Brisbane NDY, Engineering, Brisbane Caramar, Clinical Planners, Brisbane
Project Role	Evidence-Based Design Leader
Period of Participation	2011-2012
Project Cost	Estimated cost of \$2.03 billion (AUD) 2012

# Salutary effect of the outdoors

Primary focus: physical rehabilitation Secondary benefits: psychological and emotional

Healing gardens: Evidence supports 4 elements in reducing stress

- 1) Distraction by green nature
- Exercise
- Sense of control / au



Evidence-Based Design - therapeutic outdoors+SALUS

Sample slide from a client presentation demonstrating the incorporation of evidence-based thinking into the schematic design phase of the project

### Nominee's Role

Diana was responsible for leading the research-based design process within the design submission. Her participation in the Salus consortium centered on the application of research into the design process in order to optimize clinical operations, care delivery, and patient outcomes. She oversaw research application during the preparation of the planning documents.

Diana led the initiative to bring Dr. Roger Ulrich, PhD, the quintessential father of evidencebased design, to Brisbane to work alongside the team, a pioneering move for this time frame and geographic location.

Diana peer-reviewed and integrated evidence into the development of numerous departments, including the critical care suite, inpatient rehabilitation, renal dialysis unit. emergency department, and the surgical suite. Her role extended beyond these specific departments to include evidence around wayfinding, hospital waiting areas, and staff wellness.

"Diana brought international expertise and essentially provided an introduction of evidence-based design within the Australian health design community. Her experience opened the client and design team to new ways of thinking about design decisions. The client was engaged and impressed with the attention to outcomes-based design which was unique."

- Matthew Holmes, Global Health Director, Jacobs

consortium.

OUTCOME

Through the application of research and specific clinical papers and scientific studies, Diana applied an empirical foundation towards the design of various acute care spaces, such as the ICU. She was asked to present to the client on several occasions with other selected members of the

The client team included clinicians who expressed great interest in the incorporation of research rigor. In particular, Diana's critical care publications and expertise with design guidelines motivated design decisions by the team and even the client to further align the spaces to known data.

"People are less likely to exhibit signs of depression especially where access to natural light and opportunities for physical exercise are present."

-Lewy et al., Morning vs evening light treatment of patients with winter depression,
 Archives of General Psychiatry, 1998



Inboard ensuite design

Evidence-Based Design - visibility & views





Central hospital space incorporating natural light, nature, and promoting face-to-face interactions between providers. Image Credit: SALUS Partnership

# "Natural light is essential to the wellbeing of patients and staff" - Roger Ulrich et al., HERD, 2008

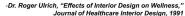
- Pain Control
- · Improved sleep / wake patterns
- Reduced patient stress
- Reduced patient depression
   Reduced length of stay



Evidence-Based Design – access to nature



"Research on intensive care units has shown that sensory deprivation stemming from, for instance lack of windows, is associated with high levels of anxiety and depression and with high rates of delirium and even psychosis."





Evidence-Based Design - daylight





### THE CRITICAL CARE UNIT

The critical care unit consists of four major zones, each housing a primary function or set of interrelated functions.

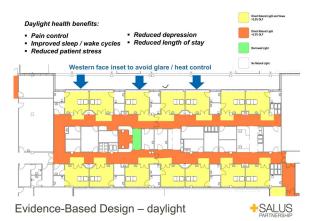
- The Patient Care Zone consists of patient rooms and adjacent areas; its primary function is direct pa-
- tient care.

  2) The Clinical Support Zone consists
  of functions closely related to direct patient care; not only inpatient
  rooms but also in other areas of the
- 3) The Unit Support Zone refers to areas of the unit where administrative, materials management, and
- staff support functions occur.

  4) The Family Support Zone refers to areas designed to support families

Guidelines for Intensive Care Unit Design. American College of Critical Care Medicine Society of Critical Care Medicine. Critical Care Medicine Journal. May 2012.

Operating Efficiencies – international best practice +SALUS



### **Declaration of Responsibility**

I have personal knowledge of the nominee's responsibility for the project listed above. That responsibility included leading the research-based initiative with the design team during the preparation of bid documents.

Name: Matthew Holmes

Title: Global Solutions Director - Health

Infrastructure, Jacobs

Signature:



## CO-FOUNDER OF CLINICIANS FOR DESIGN



### CHALLENGE

A few years ago, no forum existed to bring together clinicians with expressed interest in transforming environments that enrich the healthcare interface.

Clinicians for Design (CfD) offers a unique forum for clinicians to apply their insights and experience in "design thinking" to inform medical practice, and the evolution of policies that will enhance patient and provider outcomes.



Working group ideas from the inaugural CfD symposium, 2017

### Nominee's Role

Diana co-founded CfD alongside Eve Edelstein, PhD, EDAC, Assoc. AIA, F-AAA, based on the number of clinicians reaching out on a regular basis asking for knowledge around design to bring to their medical practice.

Diana planned the inaugural session which was hosted at the Royal College of Physicians during the European Healthcare Design (EHD) Congress in June 2017 in London, UK. The day-long event included peerreviewed presentations by hospital leaders, doctors and researchers to 50 clinical congress attendees.

Opening remarks were provided by Andrew Goddard, MD from the Royal College of Physicians London: "The RCP appreciates design's role in addressing multiple domains, such as healthcare delivery in limited resource settings, increased air pollution and reduced active transport."

- Diana has since organized CfD panel discussions at subsequent EHD events, which included soliciting subject-matter experts and chairing session.
- Diana was the lead author for a publication that featured CfD in the prestigious medical journal The Lancet entitled "The convergence of architectural design and health".



Inaugural CfD event, London, UK, 2017

### **O**UTCOME

CfD is the first group to begin to bridge the gap between the design and healthcare professions and create a global network of professionals.

- CfD has built strong relationships with potential clients, stakeholders, decision-makers, and leaders at several North American and international academic institutions including Harvard University's School of Public Health, Stanford University, Cornell University, McGill University, Oxford University, and Trinity College.
- CfD continues to educate clinicians globally on the impact of design on care delivery and health outcomes through conferences and publications globally.





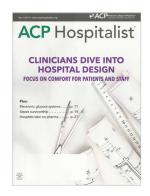
### SELECT CFD PUBLICATIONS & MEDIA COVERAGE

**Anderson DC**, Pang A, O'Neill D, Edelstein E. The convergence of architectural design and health. The Lancet. 2018;392(10163):p2432-2433.

Kalaichandran A. Design Thinking for Doctors and Nurses. The New York Times. Posted online August 3, 2017

Colwell J. Clinicians Dive into Hospital Design: Focus on comfort for patients and staff. American College of Physicians (ACP) Hospitalist magazine, Cover Story. April 2018.





### SELECT CFD PRESENTATIONS

Anderson DC. There is No Ramp Here: Crossing Disciplines, Health Equity and Leadership event, T.H. Chan School of Public Health, Harvard University, Boston, MA. March 30, 2019.

**Anderson DC**. Habitats for Healers: Architectural Design for Clinicians. Graduate School of Design, Harvard University, Cambridge, MA April 19, 2019.

Anderson DC. Architectural Design for Improved Healthcare Delivery. Stanford Medicine X. Oral Ignite! Session. Stanford University, Palo Alto, CA. Sept 17, 2017.

Edelstein E, **Anderson DC**, Grey T, O'Neill D. *Clinicians for Design: A Convergence of Expertise to Enhance Cognition and Healthcare Design*. Shared Behavioral Outcomes, Academy of Neuroscience for Architecture (ANFA), Salk Institute, San Diego, 20-22 September, 2018, 58-59.



The art of medicine

The convergence of architectural design and health

Third you must develop institution with a way of the convergence of architectural design and health

Third you must develop institution with a way of the convergence of a life to the first distance of the convergence of a life to the first distance of the convergence of the converg

"It's fantastic to meet other physicians who are interested in cross-pollinating with our professions to get better outcomes."

"I think having a network of likeminded physicians will be really useful and key in changing healthcare as we know it."

- Participant feedback for the inaugural CfD session

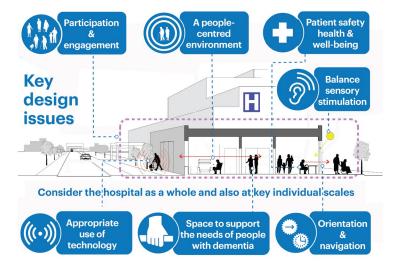


Presenting at the 2017 Medicine X event, Stanford University, CA

### **Declaration of Responsibility**

I have personal knowledge of the nominee's responsibility for the project listed above. That responsibility included founding Clinicians for Design, organizing and leading various symposia and panel discussions, and engaging clinicians with a design interest to participate in the field of healthcare architecture.

Name: Marc Sansom MBA
Title: Managing Director, SALUS Global
Signature:



Generic and hypothetical ground floor plan of a household model showing a unit with 11 single rooms with private bathrooms organized around a central communal area and access to a protected outdoor space. Source: Anderson DC et al., JAMDA, 2020



### CHALLENGE

The COVID-19 pandemic raised concerns about the physical design of long-term care (LTC) settings. In Canada, the province of Ontario changed its structural safety standards in 1998, mandating that resident rooms within nursing homes have no more than two people for any new construction.

While four-person rooms and large communal dining areas were considered below standard, existing nursing homes with this 1972 model were grandfathered and not required to upgrade to meet these standards.

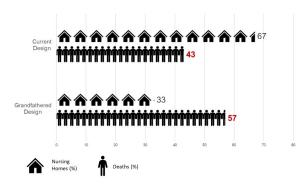
Standards were upgraded most recently in 2015. While a third of the province's facilities remain at the 1972 standard, they accounted for 57% of the province's COVID-19 deaths in long-term care homes as of June 2020.



### Nominee's Role

Diana was invited by the Ontario Long-Term Care COVID-19 Commission, established to investigate the outbreak of COVID-19 in Ontario's long term care homes and to make recommendations to prevent future outbreaks. Her track record of lectures and publications on design for aging were instrumental in this expert testimony.

Living in a Canadian nursing home grandfathered into the 1972 design standard nearly doubled the risk of death due to COVID-19.



Pedersen K. Ontario nursing homes have had 22 years to do safety upgrades. COVID-19 reveals deadly cost of delay. CBC. 9 Jun 2020.

"Thank you very much for a fantastic presentation. The Commissioners were very interested and you gave them so much to think about as they work toward recommendations... The work you described gave me a sense of hope!"

> - Ida Bianchi. Senior Counsel. Long-Term Care Commission Secretariat



### **O**UTCOME

Diana's role in providing expert testimony on the importance of architecture in LTC during the COVID-19 pandemic has been important with respect to policy and public health impact.

The LTC commission report has been used to provide the provincial government with recommendations to change the LTC landscape and address infection control, staffing, safety, and resident wellness.

### Infrastructure Design That Improves Infection Control and Quality of Life

congregate living settings, okay? Places where you crowd people together, where they have a lot of contact with each other ... in crowded living settings, you not only get more transmission, but you get the potential for amplification that you don't see in other settings where people go home

-Dr. Allison McGeer, infectious disease consultant, Sinai Health System

The infrastructure and layout of a long-term care home is an important factor in preventing the spread of infection. The Commission met with Dr. Nathan Stall, a geriatrician at Mount Sinai Hospital in Toronto. One of the issues he addressed was the relationship between a home's infrastructure and the spread of COVID-19.

In a study completed in August 2020, Dr. Stall and his colleagues found that highly crowded homes had a significantly increased risk of COVID-19 incidents and mortality

As detailed elsewhere in this report, the Commission heard that older design standards which allowed for ward-style rooms with three or four beds and shared bathrooms, were associated with an increased spread of COVID-19 within homes in outbreak and, as a result, more COVID-related resident deaths

While the approach taken by Hong Kong, described above, proves that it was possible to contain the spread of COVID-19 even in crowded homes, other innovative design ideas may achieve the same result and improve quality of life

The Commission met with Dr. Diana Anderson – a geriatric specialist and architect and Ansar Ahmed, an engineer. Dr. Anderson is currently a fellow in geriatric neurology at the VA Boston Health Care System. Both Dr. Anderson and Mr. Ahmed are principals at Jacobs, a technical professional services firm, Dr. Anderson and Mr. Ahmed spoke about the importance of design and the built environment as an element of care. They pointed to research showing that planning and architecture are key determinants of health. They advocate for "empathic" design, which focuses the design processes from the perspective of the end-user

Jacobs recently convened a roundtable with academics, service providers, health system leaders, clinicians and designers to consider responses to a number of livering care in long-term care homes. The resulting

mental therapeutic component of the healthcare experience rongly influence the overall healthcare experience

e, in reality it has a strong active dimension as it can inhibit o

### Ontario's Long-Term Care

The Honourable Frank N. Marrocco, Chair Angela Coke, Commissioner Dr. Jack Kitts, Commissioner

Diana Anderson



### PEER-REVIEWED PUBLICATIONS

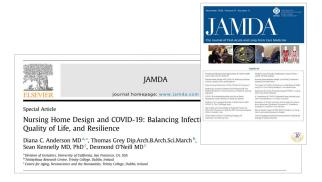
Anderson DC, Grey T, Kennelly S, O'Neill D. Nursing Home Design and COVID-19: Balancing Infection Control, Quality of Life, and Resilience. J Am Med Dir Assoc 2020 Nov;21(11):1519-1524.

\*Cited by over 80 peer reviewed publications globally

**Anderson DC**, Kota SS, Yeh L, Budson AE. Built Environment Design Interventions at the Exits of Secured Dementia Care Units: A Review of the Empirical Literature. HERD: Health Environments Research & Design Journal. 2022;0(0).

\*Invited to lead the Center for Health Design Journal Club presentation on Dec 8, 2022

Verderber S, Koyabashi U, Cruz CD, Sadat A, **Anderson DC**. Residential Environments for Older Persons: A Comprehensive Literature Review (2005-2022) [published online ahead of print, 2023 Apr 19]. HERD. 2023.





Nursing home design and the macro, meso, and micro spatial scales. Source: Anderson DC et al., JAMDA, 2020

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### NATIONAL MEDIA COVERAGE

Canadian Broadcasting Corporation (CBC) News Interview: Pedersen K, Mancini M, Wolfe-Wylie W. Ont. nursing homes have had 22 years to do safety upgrades. COVID-19 reveals deadly cost of delay. CBC News. June 9, 2020.

**CBC Radio Interview:** McCue D (host). How can we fix long-term care in Canada? CBC Radio's Cross Country Checkup. June 21, 2020.



"After the release of the LTC Report, the Commissioners met with the then Minister of Long-Term Care [in Ontario, Canada] to discuss our recommendations. The Minister indicated that healthcare architecture would have a role in future ministry planning... I would never have appreciated the interdependence of healthcare architecture and long-term care nor raised it personally with the Minister had it not been for Dr. Anderson's presentation."

- Frank Marrocco Chair of the Ontario Long-Term Care COVID-19 Commission Associate Chief Justice of the Superior Court (2013-2020)



### SPEAKING ENGAGEMENTS

Designing the Long-Term Care Home for COVID and Beyond. AvantAge Ontario (association of not-for-profit long term care, housing, and services for seniors) Webinar. August 31, 2020.

Nursing home design and Covid-19: balancing infection control, quality of life, and resilience (selected panel discussion). European Healthcare Design Congress, Awards & Exhibition, London, UK (virtual event due to COVID-19). June 16, 2021

Nursing Home Design and COVID-19: Balancing Infection Control, Quality of Life, and Resilience (invited faculty speaker), American Health Care Association / National Center for Assisted Living (AHCA/NCAL) 2021 Convention and Expo, Washington, DC (hybrid event due to COVID-19). Oct 11, 2021

Architectural Design as a Determinant of Health (invited keynote speaker), Royal Architectural Institute of Canada (RAIC) Long Term Care Working Group at the RAIC 2022 Virtual Conference on Architecture, Canada (virtual event due to COVID-19). June 8, 2022

### **Declaration of Responsibility**

I have personal knowledge of the nominee's responsibility for the project listed above. That responsibility included preparing a presentation which was delivered to the members of the LTC commission and was subsequently transcribed to provide recommendations to the provincial government on how to better protect long-term care home residents and staff from any outbreaks in the future.

Name: Frank Marrocco
Title: Associate Chief Justice of the Superior Court
(2013-2020); Senior Counsel, Stockwoods LLP,
Ontario, Canada; Chair of the Ontario Long-Term
Care COVID-19 Commission

Signature:

Frank Mansie

# Diana Anderson 2023

# MENTORSHIP OF THE MEDICINE - ARCHITECTURE MODEL

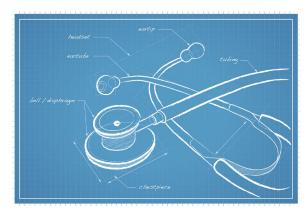


Image credit: Diana Anderson

### CHALLENGE

Increasingly, complex problems in public health and care delivery are demanding cross-disciplinary ideas and solutions. Early career professionals in both the architecture and design fields, and the clinical professions are seeking guidance on acquiring both skillsets. Few professional curricula blend design with health training despite an increasing demand for it.



Diana speaking about The Architecture of Health at Design Museum Everywhere, Boston, MA, January 25, 2019

# Nominee's Role

Diana has been mentoring early and mid-career professionals in both the design and health fields over her entire dual-professional career. She receives numerous emails or contacts through her dochitect website, sometimes several in a week.

Diana has provided career guidance and advice outside of her formal professional duties for over a decade to over 75 professionals and trainees in multiple countries, including Canada, the US, Europe, Asia, and Africa. The majority are clinical trainees who have read her work on health design and seek to integrate design thinking into their care practices.

"I feel that I can look up to you in the sense that your career path and the things you have accomplished line up so well with my own.

I have loved the idea of pursuing both a degree in architecture while I continue to work towards medical school. But I've been continually asked why I bothered studying architecture if I wanted to go to med school.

People questioned my decision to pursue these seemingly different career paths. After stumbling on your page, I was so inspired to see that someone was able to create something so positive out of architecture and medicine. I just wanted to say thank you for reminding me that even things that may seem impossible can be done."

- Sabrina Yamaguchi

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### **O**UTCOME

The medical profession is increasingly recognizing the impact of space on their patients and themselves as providers, and Diana's mentorship has created awareness and change to those outside the field of health architecture.

The dochitect model has provided unique inspiration for clinicians to apply this health design knowledge to their practice and within their hospital systems.

"Since I first worked in a hospital for a summer job before college, I've been interested in the architecture and history of medical centers...

I'm particularly interested in the design of medical schools and academic hospitals through history, and I'm aiming to examine form-function relationships in buildings of different eras to see how philosophies guiding the teaching and practice of medicine become physically manifested through architecture.

I originally learned of your work through a podcast interview you gave, and reading through dochitect.com it's all extremely fascinating.

I'd be curious to hear your perspective on how the factors influencing medical center design have changed over time."

- Nicholas T. Hogan, fourth year medical student

"I received my undergraduate medical training at the Stanford University School of Medicine, where I received training within the d.school (School of Design). I have been leveraging this training as a clinical mentor for engineers at the University of Pittsburgh designing health care solutions.

Over the last few years, I have become passionate about how the design of physical spaces and processes can affect patient and caregiver health outcomes. I was very excited to hear about your work through a colleague, as it has been difficult to identify a mentor with similar interests. I would greatly appreciate any opportunity to learn more about your career path and the intersection between health and design."

 Michelle-Linh Nguyen, MD, internal medicine resident, University of Pittsburgh Medical Center (UPMC)



Diana presenting on the topic of Designing for the Clinician, The Center for Health Design, New York, NY, sponsored by Steelcase & Waldners Business and Healthcare Environments. June 19, 2014

"Hello Diana, I just wanted to say you're truly inspiring. I am currently studying to be an architect myself and have a deep desire to get into the medical field. I know you're a busy person but I just wanted to say thank you for your example!"

- Joe Correia



Diana leading a roundtable discussion at Healthcare Design entitled "Disruptive Innovation: Is it Time to Rethink Healthcare Strategies?" Houston, TX, November 14, 2016

Mentee, degree(s)	Collaborative-manuscript or product produced
Student	
Steph Pang, MD Candidate	Anderson DC, Pang A, O'Neill D, Edelstein E. The convergence of architectural design and health. The Lancet. 2018;392(10163):p2432-2433.
Shalini Kota, MD Candidate	Bassin BS, Nagappan B, Sozener CB, Kota SS, Anderson DC. Widening the lens: Clinical perspectives on design thinking for public health. The Journal of Health Design; Vol 5, No 3 (2020): The Year Like No Other. 2020.
Shalini Kota, MD Candidate <sup>1</sup> Leigh Yeh Elite HRV, New York <sup>2</sup> Shari Blanch, Bdes(Arch), MSCD, March <sup>3</sup>	Anderson DC, Kota SS, Yeh L, Budson AE. Built Environment Design Interventions at the Exits of Secured Dementia Care Units: A Review of the Empirical Literature. HERD: Health Environments Research & Design Journal. 2022;0(0). doi:10.1177/19375867221125930
Resident	
Jon Fricchione, MD, UMass Medical School	The Importance of Healing Gardens in Healthcare – a literature review (in progress)

Selected mentoring activities with subsequent publications produced

"I wanted to reach out to you in regards to your website, and thank you for its amazing and inspiring content! Currently, I myself am working towards transitioning from an architecture career to a medical career, and wanted to extend my gratitude to you for sharing your career journey on your website.

It is incredibly inspiring to me, and validates many of my underlying reasons for my own career 'transition'— or rather, 'merge', as you put it. Thank you again for your lovely website. It helps me to reinforce my new belief that perhaps in order to become the best architects that we can be, we must also become doctors."

- Andrew Hoffman



"Last month I finally registered as an Architect, and instead of feeling motivated at the prospect of a fulfilling career in Architecture, I couldn't help but think 'Now what??'. I've always wanted to study Medicine. After finishing the 'Architecture Chapter', I feel ready to allow myself to dream about a career change, and I'm considering applying for med school.

I came across your dochitect website which was very inspiring. The fact that you continue to practice both Architecture and Medicine is brilliant, bridging the gap between both worlds, creating a unique expertise. Thanks for inspiring! Hope I'll be able to learn from the dochitect model, maybe even use it someday!"

- Tina Matthiesen

"I'm contacting you because I've always struggled to reconcile my love of science and medicine with my love of creativity, art and design. I've often dreamed of having the opportunity to directly care for patients AND design products or spaces that are aimed at easing the state of being sick.

I believe it would the ideal way for someone like me to help make the world a better place. However, no one ever talks about MD/M.Arch as an option. I had a feeling there were like-minded people out there who managed to do it, but finding your website practically made me jump out of my chair in excitement."

- Jon Fricchione, MD

Medicine and Architecture Integrated. Healthcare Innovated.

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"I first met Dr. Anderson after I had come across her Dochitect website. Over the past eight years, she has provided mentorship to me, both for architectural and medical career development. With her dedicated support for this unique professional intersection. I embarked on endeavours that include conducting a research study on architectural design of a major academic oncology centre, enrolling in architectural studies at McGill University and Columbia University during my medical training. She also opened the door to multiple opportunities such as a student fellowship in the Human Experience Lab of Perkins+Will, attending Healthcare European Desian congress, and participating in launching the international network Clinicians for Design. I am tremendously grateful for Dr. Anderson's mentorship through my studies and early career."

-Steph Pang, MDCM

### **Declaration of Responsibility**

I have personal knowledge of the nominee's responsibility for the project listed above. That responsibility included both informal and formal mentorship sessions and career guidance for numerous early and mid-career professionals, most often clinicians who expressed a desire to combine practice with architectural design.

Name: Steph Pang, MD

Title: Oncology Fellow, McGill University Health

Center, Montreal, Canada

Signature:

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### **UNPAID INTERN ARCHITECTS**

I affirm that I do not have unpaid intern architects, including working students, and neither does any firm of which I am an owner or manager.

I certify that all information is true and correct in the application to the best of my knowledge.

Signed

