Alice Apple

11 Beach St | Heaven, VT 05404 | 555.000.0008 | Alice.Apple@apple.com

EDUCATION

University of Vermont, Larner College of Medicine: Burlington

Aug. 2018- Present

M.D. Candidate, Class of 2022

Dartmouth College: Hanover, NH

Sept. 2012- June 2016

Bachelor of Arts in Philosophy, Magna Cum Laude, Phi Beta Kappa

Honors Thesis: "Akrasia, rationality, and autonomy: understanding the moral responsibility of the addict."

Advisor: Adina Roskies PhD, Associate Professor of Philosophy

Wyoming Wilderness Medicine School/National Outdoor Leadership School

July 2013

Accelerated urban EMT course combined with a Wilderness First Responder course.

HONORS & AWARDS

UVM Larner College of Medicine

Jan. 2020

Helen and Phyllis Wasserman Phorplus Prize for Excellence in Basic Sciences

- Recognition of three students per class for highest overall scores through year 1&2 curriculum.

UVM Larner College of Medicine

Jan. 2020

Exemplary Clinical Exam Skills Award

- Three students per class nominated by faculty and clinical simulation staff for exemplary clinical examinations and patient rapport.

UVM Larner College of Medicine

Jan. 2020

Durwood Smith Award for Excellence in Pharmacology

- Offered to one student per class for highest scores in pharmacology through years 1&2 curriculum.

WORK & VOLUNTEER EXPERIENCE

Alta Medical Clinic: Alta, UT

Nov. 2017- May 2018

Medical Assistant/EMT:

- Gathered patient intake information such as history, vital signs and filed claims for insurance and billing.
- Assisted providers with medical procedures such as fracture splinting, reductions, x-ray etc.

PACE MedSpanish: San Miguel de Allende, Mexico

June 2017- Oct. 2017

Volunteer and Language program student:

- Intensive Medical Spanish language lessons with emphasis on clinical, cultural immersion, and global health.
- Volunteered with local Red Cross ambulances, Brigada mobile health clinics, and local hospitals.
- Developed a First Responder Course for community health workers
- Assisted with the instruction of CPR courses in Spanish in local rural communities.

Medley Restaurant: Taos, NM *Assistant Pastry Chef*:

Sept. 2016- May 2017

- Assisted with food preparation: required equal parts devotion to detail and creativity.

Mogul Medical Urgent Care: Taos Ski Valley, NM

Nov. 2013- Apr. 2017

Medical Assistant/EMT:

- Assessed and triaged incoming patients, performed first aid, completed administrative and insurance intake, took vital signs.
- Assisted providers with medical procedures such as fracture splinting, reductions, x-ray and other medical procedures.

Dartmouth Ski Patrol: Lyme, NH

Sept. 2012- June 2016

Patroller/Training Officer:

- Responded to calls for assistance: performed initial assessment, stabilized patient, performed first aid, made disposition and transport decisions. Assisted with daily mountain operations.
- Training Officer (9/2014-5/2015): Organized and taught weekly training and skills sessions, managed and assisted in teaching the yearly Outdoor Emergency Certification course and biannual refresher course.

RESEARCH EXPERIENCE

"An innovative protocol for use of intranasal fentanyl for on-the-hill analgesia by ski patrol, a health records review"

Nov. 2018- Present

Principal Investigator:

Advisor: Sarah Schlein MD, Dept. Emergency Medicine UVMMC

- Conducted a retrospective health records review to assess safety and efficacy of intranasal fentanyl in austere environments such as ski areas.
- Applied for IRB approval. Conducted literature review, performed data analysis, wrote and edited manuscript. Pending submission.
- Recipient of UVM Larner COM Summer Research Fellowship, 2019

"Step Siblings: A novel peer-mentorship program for medical student wellness during USMLE Step 1 preparation"

Aug. 2020- Present

Co-Principle Investigator

Advisor: Lee Rosen PhD, Interim Assoc. Dean of Students, UVM Larner College of Medicine

- Participated with a small team to pilot a peer mentorship program with an emphasis on providing wellness rather than academic support for students taking national board exam Step 1.
- Conducted survey of participants, performed literature review, performed data analysis and wrote manuscript. Submitted to *Medical Science Educator* 9/2021.
- Plan to submit findings for presentation at regional AAMC medical education meeting.

SERVICE & LEADERSHIP

Wellness Committee: UVM Larner College of Medicine

Oct. 2018- Present

Student Committee Member:

- Elected by classmates as one of four student representatives to help foster and maintain wellness, resiliency, health, and peer connection among the students of Larner.
- Commit 20 hours/month to organize monthly peer support groups, fresh food days, biannual mental health panels, various workshops such as sleep hygiene and mindfulness. Serve as confidential and nonjudgmental support resource for peers.
- Helped to initiate a Leadership Counsel to increase communication between student leadership groups.

Committee for Equitable Allocation of COVID-19 Vaccine: VT Dep. Of Health Volunteer:

Jan. 2021- Apr. 2021

Compiled data from regional district health directors regarding vaccination needs for vulnerable populations. Compared data to Social Vulnerability Index on GIS mapping to demonstrate areas needing increased focus.

Ultrasound Student Interest Group: UVM Larner College of Medicine Student Leader:

May 2019- Dec. 2019

- Attended additional extracurricular workshops covering a variety of techniques and organ systems.
- Taught basics of point of care ultrasound to first year medical students including basic technique and interpreting findings for various organ systems (e.g. vasculature, renal, cardiac, etc.)

Wilderness Medicine Student Interest Group: UVM Larner College of Medicine

Oct. 2018- Dec. 2019

- Student Leader:
 - Organized and helped teach a semester long wilderness first aid course for medical students.
 - Organized hikes, journal clubs, cabin nights, with the aim of fostering teamwork, austere skills, and a love of the outdoors.

PUBLICATIONS & PRESENTATIONS

-----. "Dental Basics for the PCP." UVM ScholarWorks. Family Medicine Clerkship Student Projects. 657. 2021 Jul. https://scholarworks.uvm.edu/fmclerk/657

Barnum M.¹, Friedman, R.¹, -----.¹, Montgomery, C.¹, Sue, I.¹, Wells, J.¹, Yousef, H.¹, Delaney T. PhD², Cote, E.², Maclean, C. MD², Carney J. MPH.³ "Physician Attitudes Toward Screening for Social Determinants of Health." UVM ScholarWorks. Public Health Projects. 302. 2020 Oct. https://scholarworks.uvm.edu/comphp_gallery/302

Presented at UVM Public Health Poster Session

Jan. 2020

*Presented at American Public Health Association National Meeting

Oct. 2020

-----. "First Days in Anatomy Lab." *Academic Med.* 2020 Jul;95(7):975-976.

LICENSURE & CERITIFICATION

Basic Life Support, American Heart Association

Expires Oct. 2021

Prehospital Traumatic Life Support: National Academy of Emergency Medicine Technicians

2016

Avalanche Level I: American Institute for Avalanche Research

2016

SKILLS & INTERESTS

Spanish Language

Proficiency: Good, with good working knowledge of medical Spanish.

Outdoor Activities: Backcountry skiing, Backpacking, Rock climbing, Mountain biking, and Whitewater rafting

Barbara Barker

108 East St, Burlington, VT 05401 555-555-5555 Barbara.Barker@gmail.com

EDUCATION

| August 2018 presen | niversity of Vermont Larner College of Medicine Burlington, VT octor of Medicine |
|-----------------------|---|
| January - | niversity of Arkansas Little Rock Little Rock, AR |
| December 201 | ost-bac premedical coursework: Organic Chemistry II, Biochemistry |
| June - | ont Range Community College Westminster, CO |
| December 201 | ost-bac premedical coursework: Microbiology, Organic Chemistry I, General Chemistry |
| June 2015 - | ed Rocks Community College Lakewood, CO |
| May 2010 | ost-bac premedical coursework: General Chemistry I, Psychology MT Program |
| August 2012 - | niversity of Colorado Denver Anschutz Medical Campus Aurora, CO |
| December 201 | I.S in Bioengineering |
| | nesis: Airway Morphology Using Computed Tomography of Patients Diagnosed with euroendocrine Cell Hyperplasia of Infancy |
| August 2005 - | niversity of New Hampshire Durham, NH |
| May 2009 | S in Mathematics, minor in Physics |
| | ivision 1 Nordic Ski Athlete |
| | ordic Ski Team Captain |
| | WARDS AND HONORS |
| 202: | old Humanism Honor Society |
| | - Nominated by peers and recognized for "demonstrated excellence in clinical |
| | care, leadership, compassion, and dedication to service" |
| | niversity of New Hampshire |
| 2005 - 2009 | - Presidential Scholarship Recipient |
| 2006 - 2009 | - Academic All-American |

Basic Life Support May 2015 -Present **National Registry of Emergency Medical Technicians** August 2015 -Certified EMT-B December 2020 State Licenses in Colorado and Arkansas **Wilderness First Responder** August 2014 WORK EXPERIENCE Mentor for Health and Medicine at Governor's Institute of Vermont Northfield, VT July 2019 Facilitated mock trauma environments for basic first responder training Guided students through collecting a history of present illness Generated an enriching environment for high school exploration of health care careers MedQuest Mentor, Randolph, VT June 2019 Helped high school students explore a career in medicine through workshops, simulations, and teaching sessions Mentored students on various career paths available in health care ER Patient Care Tech, Arkansas Children's Hospital Little Rock, AR January 2017 -Assisted medical staff with providing and facilitating patient care, exams, and March 2018 procedures Coordinated with ER staff to maintain smooth flow of patients through the ER Medical Scribe Boulder Community Hospital, Boulder, CO September – December 2016 Charted patient-physician interactions, documented consults, and recorded radiology reports Searched patient past-medical history to extract pertinent medical information Trauma Tech Boulder Community Hospital, Boulder, CO January -Completed all wound care, splinted orthopedic injuries, and assisted with December 2016 reductions and sedations Assisted nurses and physicians with orders including IVs, EKGs, exams, and discharges Integral member of trauma activations, stroke alerts and resuscitations

Girls Mountain Bike Coach Singletrack Mountain Bike Adventures Boulder, CO

May – August 2014

- Empowered young female mountain bike riders by establishing a positive and supportive environment
- Taught technical skills and drills
- Provided first aid in remote wilderness

Cross-Country Skiing Assistant Coach Boulder Nordic Junior Race Team Boulder, CO

November 2011

Inspired and taught young athletes to cross-country ski

- December

- Organized weekend race events and team travel
- Managed young adults at away events and prepared equipment for races

2016

RESEARCH EXPERIENCE

Community Health Improvement Project Colchester Family Practice, Colchester VT Helping Parents Manage Extra Family Time During COVID

December 2020 - January 2021

- Interviewed healthcare providers and patients with children regarding the effects of COVID on their home dynamics and stress levels
- Identified guick resources for families to use around academic, activity and wellness support
- Generated a pamphlet of tips and tricks for managing young children at home along with local mental health resources

Interprofessional Experience (IPE) on Adverse Childhood Experiences Burlington, VT IPE on Adverse Childhood Experiences and Pregnancy Outcomes

July 2019 -December 2019

- Collaborated with the College of Nursing to develop an interdisciplinary experience (IPE) on ACEs in a small group, case-based manner with experienced
- Generated course objects, prework and session material that was integrated with current curriculum
- Collected student feedback on usefulness of content, understanding of the impact of ACEs, and the session format
- Performed qualitative data analysis and presented results at annual Teaching **Academy Retreat**

Research Assistant, Arkansas Children's Research Institute Little Rock, AR Effect of virtual reality on adolescent pain during burn would care Research Mentor: Debra Jeffs, PhD, RN

August 2017 -March 2018

- Recruited participants using appropriate inclusion criteria for a nouveau pediatric burn wound care treatment
- Recorded observations during standard care and research intervention care

Master's Thesis, University of Colorado Denver | Anschutz Medical Campus Aurora, CO Airway Morphology Using Computed Tomography of Patients Diagnosed with Neuroendocrine Cell Hyperplasia of Infancy (NEHI)

June 2013 – August 2014

Research Mentors: Kendall Hunter, Phd, Emily DeBoer, MD, Robin Deterding, MD

- Applied a novel shape modeling technique to skeletonized airways of patients with NEHI in a proof-of-concept for alternate diagnostics method
- Presented modified thesis work at annual Children's Interstitial Lung Disease Conference (August 2014)
- Presented modeling techniques to Children's Hospital Colorado Radiology
 Department (August 2014)

PUBLICATIONS & PRESENTATIONS:

Mastej EJ, DeBoer EM, Humphries SM, **Barker B**, Hunter KS, Liptzin DR, Weinman JP, Deterding, RR. Lung and airway shape in neuroendocrine cell hyperplasia of infancy. *Pediatr Radiol*. 2018;48(12):1745-1754. doi:10.1007/s00247-018-4189-6

A Novel and Interdisciplinary Approach to Deepen Medical Student Understanding of Adverse Childhood Experiences (ACEs), Their Health Impact and Management by **Barker B**, Wilson F, Cote E, Lemieux N. Snow Season Education Retreat Jan 2020 hosted by the Teachy Academy at the University of Vermont Larner College of Medicine

16 January 2020 Burlington, VT

TEACHING

Point of Care Ultrasound Teaching & Curriculum Enhancement

Mentor: Keith Curtis, MD UVM Larner College of Medicine Burlington, VT

- Instructor for POCUS sessions to first- and second-year medical student
- Familiarize students with probe selection, patient position, normal and abnormal finding for common ultrasound exams
- Generating quick notes for POCUS modules for student review, integrating relevant pre-clinical content for national board examinations

September 2019

- current

Graduate Teaching Assistant

Professor: Kendall Hunter, PhD University of Colorado Denver | Anschutz Medical Campus *Aurora, CO*

January 2014 – May 2014

- Teaching assistant for Numerical Analysis, a course on conversion of differential equations to computer functions
- Provided content review, hosted office hours and graded assignments
- Relayed students' questions and concerns with professor

Math & Physics Teacher | XC Running, XC Skiing and Sailing Coach | Dorm Parent The Dublin School *Dublin, NH*

August 2009 – May 2011

- Generated lesson plans, homework assignments and exams for Geometry and Pre-calculus
- Developed a conceptual physics course for freshmen that included hands-on and real-world scenarios
- Revamped the XC skiing program at Dublin, initiating Dublin's presence at New England Preparatory School Athletic Council (MEPSAC) race events
- Oversaw the well-being of high school students in their residence halls
- Organized and lead weekend outings

on results

pressure awareness tables

- Acted as a positive role model and mentored students with personal issues.

SERVICE & VOLUNTEER EXPERIENCE

November 2018 Here to Help Co-leader of monthly event that provided food and access to resources to those in need - December Created, planned, and cooked food for 100+ people 2019 Coordinated with Community Supported Agriculture for fresh vegetable Core member of organization, participating in monthly meetings and discussions on changes and expanded resources **Running Student Interest Group** December 2018 Co-leader of student weekly running group September Created local running routes, communicated with student participants 2019 Collaborated with Never Give Up Ever organization to fundraise, recruit and participate in Vermont City Marathon **Smile Docs** September 2018 Elementary school science & wellness education - December Traveled to local schools once monthly to teach health and science topics 2019 **Woodside Project** September 2018 Education at local juvenile detention center - December Lead interactive sessions on health and wellness with young adults 2019 University of Vermont Health Network Employee Health Screens June – August Performed scheduled annual employee health checks and counselled patients 2018

Lead pop-up blood pressure stations and new employee orientation blood

PROFESSIONAL ORGANIZATIONS

| Gold Humanism Honor Society (GHHS) | April 2021- |
|--|--------------|
| | Present |
| Emergency Medicine Residents' Association (EMRA) | April 2021 - |
| | Present |
| Society for Academic Medicine (SAEM) | April 2021- |
| | Present |
| American Medical Association (AMA) | March 2020 - |
| | Present |

INTERESTS

Training my dog and taking him on walks to the lake and dog park

Baking desserts for me and my fiancé to enjoy

Family dinners that last for hours on end

Numerous outdoor activities: mountain biking, gravel biking, trail running, hiking, paddle boarding, XC skiing, and backcountry skiing,

Travel, during the pre-COVID time

Forage mushrooms, especially the choice edibles

EXTRACURRICULAR

NCAA Division 1 Nordic Skiing Athlete University of New Hampshire *Durham, NH* Head Coach: Cory Schwartz

August 2005 – May 2009

- Balanced demanding academic and training schedules
- Integral member of the scoring points during weekend events
- Motivated and inspired my fellow teammates as team captain, 2008-2009

University of New Hampshire Cycling Club Durham, NH

January 2006 -

- Participated in Eastern Collegiate Cycling events
- Qualified for and competed in US Collegiate Cycling Nationals, 2008

May 2008

Daniel Day Lewis

Date Prepared: August 28, 2021

School Address: Given Box 222, UVM College of Medicine, 89 Beaumont Ave, Burlington, VT 05405

Home Address: 555 Cook BLD, VT 05482

Phone: 802-555-555

Email: DanielDayLewis@med.uvm.edu

Place of Birth: Burlington, VT

EDUCATION

2018–Present M.D. (expected 2022) Medicine Larner College of Medicine at the

University of Vermont, Burlington, VT

2015 B.S. Biology Bates College, Lewiston, ME

Senior thesis: "Nasal carriage of *Staphylococcus aureus* and methicillin-resistant *Staphylococcus aureus* among students at Bates College: epidemiology, risk factors, and

antibiotic susceptibility patterns"

HONORS AND RECOGNITIONS

| 2021 | Gold Humanism Honor Society | Larner College of Medicine |
|-----------|--------------------------------------|----------------------------|
| 2020 | Exemplary Clinical Exam Skills Award | Larner College of Medicine |
| 2015 | Sigma Xi | Bates College |
| 2015 | Phi Beta Kappa | Bates College |
| 2015 | Summa cum laude | Bates College |
| 2011–2015 | Dean's List | Bates College |

PROFESSIONAL EXPERIENCE

Summer 2019 **University of Vermont** – Summer Medical Student Research

Developed and carried out methods for analyses of adipose tissue, lung parenchyma, and airway wall thickness on computed tomography scans from clinical trials exploring the relationship

between asthma and obesity.

2017–2018 University of Vermont Medical Center – Clinical Research

Coordinator II

Managed three investigator-initiated trials, funded by the National Institutes of Health, investigating the relationship between asthma and obesity. Performed participant enrollment, phlebotomy, pulmonary function tests, and methacholine

challenge testing.

2015–2017 **Brigham and Women's Hospital** – Clinical Research

Coordinator

Enrolled and managed participants in clinical research studies exploring aspects of chronic obstructive pulmonary disease. Analyzed chest CT scans to study imaging as a biomarker for

disease identification and clinical course.

Burlington, VT

Burlington, VT

Boston, MA

Bangladesh

| Summer 201 | Phillips Fellow for Experience in Global Learning Worked on an international clinical research project exploring the underperformance of oral polio and rotavirus vaccines in Southeast Asia; conducted an independent research project focusing on the relationship between healthcare and culture. | Bungiacesii |
|--------------------------------|--|-------------------------|
| LEADERSHIP AND VO 2020–2021 | Larner College of Medicine – Step 1 Mentor Worked with second-year medical students across multiple sessions to establish Step 1 study plans; provided strategies for approaching practice problems as part of a Step 1 support series. | Burlington, VT |
| 2020 | University of Vermont Health Network COVID-19 Response Team – Student Volunteer Researched state and federal COVID-19 guidelines to create an up-to-date reference for healthcare providers in the University of Vermont Health Network. | Burlington, VT |
| 2019–Present | Premedical Enhancement Program – <i>Student Mentor</i> Serve as a mentor for an undergraduate student at the University of Vermont with an interest in medicine as part of an organized premedical program. | Burlington, VT |
| 2018–2020 | Larner College of Medicine Student Ambassador Volunteered as a student representative at Larner College of Medicine admissions events. | Burlington, VT |
| 2018–2020 | Athletics Student Interest Group – Leader Arranged weekly ice hockey pick-up games for students, faculty, and staff; organized the annual "Specimen Cup" game against Geisel School of Medicine at Dartmouth. | Burlington, VT |
| 2018–2020 | Here to Help Student Interest Group – Meal Preparation Leader Organized and cooked meals for up to 70 members of the Burlington community who gathered monthly as part of a student-led initiative to provide food, clothing, and access to resources to those in need. | Burlington, VT |
| 2018–2019 | Internal Medicine Student Interest Group – <i>Leader</i> Coordinated shadowing opportunities and monthly case conferences for fellow medical students. | Burlington, VT |
| 2018–2019 | Smile Docs Taught basic health education to elementary students at a local school. | South Burlington, VT |

International Centre for Diarrhoeal Disease Research –

Summer 2014

2016-2017

Enroot Education – *Volunteer Mentor* Served as a trusted tutor and advisor for an immigrant student from Haiti attending Cambridge Rindge and Latin School.

Cambridge, MA

PUBLICATIONS

- Bhatawadekar SA, Peters U, Walsh RR, Daphtary N, Lewis DD, Hodgdon K, Kinsey CM, Kaminsky DA, Bates JHT, Dixon AE. Air trapping versus atelectasis in obesity: relationship to late-onset non-allergic asthma and aging. *Ann Am Thorac Soc.* 2021 Aug 3. doi: 10.1513/AnnalsATS.202010-1317RL. Epub ahead of print. PMID 34343031.
- Bhatawadekar SA, Peters U, Walsh RR, Daphtary N, Lewis DD, Mori V, Hodgdon K, Kinsey CM, Kaminsky DA, Bates JHT, Dixon AE. Central airway collapse is related to obesity independent of asthma phenotype. *Respirology*. 2021 Jan 5;26(4):334-34. doi: 10.1111/resp.14005. PMID 33403681.
- 3. Bates JHT, Peters U, Daphtary N, **Lewis DD**, Hodgdon K, Kaminsky DA, Bhatawadekar S, Dixon AE. Altered airway mechanics in the context of obesity and asthma. *J Appl Physiol*. 2021 Jan 1;130(1):36-47. doi: 10.1152/japplphysiol.00666.2020. PMID 33119471.
- 4. Dixon AE, Peters U, Walsh R, Daphtary N, **Lewis DD**, Hodgdon K, Kaminsky DA, Bates JHT. Physiological signature of late-onset nonallergic asthma of obesity. *ERJ Open Res*. 2020 Jul;6(3):00049-2020. doi: 10.1183/23120541.00049-2020. PMID 32832525.
- 5. Diaz AA, Maselli DJ, Rahaghi F, Come CE, Yen A, **Lewis DD**, Okajima Y, Martinez CH, Yamashiro T, Lynch DA, Wang W, Kinney GL, Washko GR, San Jose Estepar R. Pulmonary vascular pruning in smokers with bronchiectasis. *ERJ Open Res*. 2018 Nov 23;4(4):00044-2018. doi: 10.1183/23120541.00044-2018. PMID 30480001.
- 6. Bhatt SP, Vegas-Sanchez-Ferrero G, Rahaghi FN, Lewis DD, Gonzalez-Serrano G, Come CE, Kinney GL, Hokanson JE, Budoff MJ, Cuttica MJ, Wells JM, San Jose Estepar R, Washko GR. Cardiac morphometry on computed tomography and exacerbation reduction with beta-blocker therapy in chronic obstructive pulmonary disease. *Am J Respir Crit Care Med*. 2017 Dec 1;196(11):1484-1488. doi: 10.1164/rccm.201702-0399LE. PMID 28441027.
- 7. Diaz AA, Rahaghi FN, Doyle TJ, Young TP, **Lewis DD**, Martinez CH, San Jose Estepar R, Guerra S, Tesfaigzi Y, Rosas IO, Washko GR, Wilson DO. Differences in respiratory symptoms and lung structure between hispanic and non-hispanic white smokers: a comparative study. *Chronic Obstr Pulm Dis*. 2017 Sep 5;4(4):297-304. doi: 10.15326/jcopdf.4.4.2017.0150. PMID 29354674.
- 8. Diaz AA, Young TP, Maselli DJ, Martinez CH, **Lewis DD**, Yen A, Dass C, Simpson SA, Lynch DA, Kinney GL, Hokanson JE, Washko GR, San Jose Estepar R. Bronchoarterial ratio in never-smokers adults: implications for bronchial dilation definition. *Respirology*. 2017 Jan;22(1):108-113. doi: 10.1111/resp.12875. PMID 27538197.

ABSTRACTS AND PRESENTATIONS

 Lewis DD. "COVID-19 Vaccination: Educating Patients on Vaccine Availability and Distribution Plans in Lewiston, ME" (2021). Family Medicine Clerkship Student Projects. 637. https://scholarworks.uvm.edu/fmclerk/637

- 2. Tsai MA, **Lewis DD**. Primary care telephone triage data as a syndromic surveillance measure for early COVID-19 disease. Oral presentation to the Society of General Internal Medicine New England & Mountain West Virtual Regional Meeting, November 2020.
- 3. Bhatawadekar SA, Peters U, **Lewis DD** Walsh RR, Kinsey CM, Daphtary N, Kaminsky DA, Bates JHT, Dixon AE. Peripheral airways collapse at end-expiration in lean and obese asthma assessed by computed tomography. Abstract poster presented to the American Thoracic Society Virtual Conference, August 2020.
- 4. Dixon AE, Peters U, Walsh R, Daphtary N, **Lewis DD**, Hodgdon K, Kaminsky DA, Bates JHT. Late-onset non-allergic asthma in obesity: a disease of derecruitment. Abstract poster presented to the American Thoracic Society Virtual Conference, August 2020.
- 5. Peters U, Kaminsky DA, Walsh R, Kinsey CM, **Lewis DD**, Daphtary N, Hodgdon K, Bates JHT, Dixon AE. Distinct physiological signature of late-onset non-allergic asthma of obesity. Abstract poster presented to the American Thoracic Society International Conference, May 2019, Dallas, TX.
- 6. Peters U, Daphtary N, Kaminsky DA, Walsh R, **Lewis DD**, Kinsey CM, Dixon AE, Bates JHT. Real-time tracking of changes in respiratory system impedance during and immediately following methacholine challenge in obese patients: implications for modeling. Abstract poster presented to the American Thoracic Society International Conference, May 2018, San Diego, CA.
- Peters U, Kaminsky DA, Daphtary N, Lewis DD, Walsh R, Kinsey CM, Dixon AE, Bates JHT. Multi-breath nitrogen washout reveals intra-breath lung recruitment and derecruitment in obese asthmatics. Abstract poster presented to the American Thoracic Society International Conference, May 2018, San Diego, CA.
- 8. Peters U, Walsh R, Kinsey CM, **Lewis DD**, Daphtary N, Kaminsky DA, Bates JHT, Dixon AE. Assessment of changes in airway dimension by spirometrically-guided computed tomography in obese patients with and without asthma. Abstract poster presented to the American Thoracic Society International Conference, May 2018, San Diego, CA.
- 9. Peters U, Daphtary N, Kinsey CM, Walsh R, **Lewis DD**, Kaminsky DA, Dixon AE, Bates JHT. A new oscillometry-based methodology for detecting pulmonary airway collapse during relaxed expiration in obese late-onset nonallergic asthma. Abstract poster presented to the American Thoracic Society International Conference, May 2018, San Diego, CA.
- 10. Lewis DD, Rahaghi FN, Sánchez-Ferrero GV, Come CE, Minhas J, Diaz A, San José Estépar R, Washko G. Inspiratory to expiratory ventricular volume changes in smokers and their relationship to emphysema. Abstract poster presented to the American Thoracic Society International Conference, May 2017, Washington D.C.

PROFESSIONAL MEMBERSHIPS

American College of Physicians, student member (2018—Present) American Medical Association, student member (2021—Present)

<u>PERSONAL INTERESTS</u>
Ice Hockey; Running; Multi-Day Hiking Trips; Alpine Skiing; Mountain and Road Biking; Reading Fiction and Non-Fiction; Amateur Photography (https://lewis.smugmug.com/)

Edward Edwards

5 Gates Avenue, Burlington, VT 05401 802-555-5555 | Edward.Edwardss@med.uvm.edu

EDUCATION

University of Vermont Larner College of Medicine

MD Candidate

Burlington, VT May 2022 (expected)

Harvard University

BA in Human Developmental and Regenerative Biology

Secondary in Government

Cambridge, MA May 2018

RESEARCH EXPERIENCE

University of Vermont

Internal Medicine Quality Improvement

Surveyed University of Vermont Medical Center house staff regarding their comfort in managing insulin requirements for hospitalized patients with type I diabetes melitus. Based on respondent's suggestions for improvement, we developed a new insulin order set in Epic, which allows for direct entry of patientspecific carbohydrate ratios and correction factors. Findings to be presented at the Vermont Chapter of the American College of Physicians Annual Scientific Meeting and the American Medical Association Research Challenge.

Burlington, VT Mar 2021 – present

University of Vermont Medical Center Emergency Medicine Research Program

Medical Student Researcher

Performed chart review study of pediatric patients who boarded in Vermont emergency departments for a mental health-related chief complaint. Areas of focus included patient demographics, length of stay, admitting and discharge diagnoses, disposition location, resources (sitters, medications, physical restraints) used, etc. Currently analyzing state-level data and preparing article for journal submission.

Burlington, VT Jul 2021 – present

University of Vermont Medical Center Emergency Medicine Research Program

Medical Student Researcher

Investigated the effect of public health measures implemented to slow the spread of COVID-19 on seasonal influenza rates in Vermont. Presented findings at the Society for Academic Emergency Medicine (SAEM) New England Regional and National Meetings.

Burlington, VT Mar 2020 – May 2021

University of Vermont Larner College of Medicine Jeffrey Spees, PhD Lab

Medical Student Researcher, Undergraduate Researcher

Contributed to several projects including the investigation of genes responsible for post-myocardial ischemia epicardial cell migration, preventing post-myocardial ischemia reperfusion injury in a catheterization-lab setting using a pig model, and growth factor delivery via nanoparticles as a lung cancer treatment. Performed research full-time during summer breaks in college and medical school.

Colchester, VT Jun 2015 – present

Harvard Department of Human Evolutionary Biology Terrence Capellini, PhD Lab

Aug 2017 – May 2018

Cambridge, MA

Undergraduate Researcher

Investigated the role of parallel evolutionary changes in the regulatory region of several genes on limb proportions in primates. Developed skills including DNA transformation and transfection, measuring gene expression via luciferase assay, and the utilization of SerialCloner software.

Cambridge, MA Aug 2015 – May 2016

Harvard Department of Stem Cell and Regenerative Biology Doug Melton, PhD Lab

Undergraduate Researcher

Investigated the role of several genes in axolotl limb regeneration. Developed skills including hypothesis testing, gene modification via CRISPR, pronuclear microinjections, microsurgery. Awarded Harvard College Research Program grant.

OTHER WORK EXPERIENCE

Matt Dunne for Governor

Campaign Intern & Director, St. Albans Field Office

Served as a gubernatorial campaign intern and directed the St. Albans Field Office in our Get Out The Vote effort ahead of Vermont's primary election. Duties included fundraising, event organizing, and reaching out to community members through door-to-door canvassing and phone-banking.

Burlington, VT Apr 2016 – Aug 2016

Northern Tier Center for Health (NOTCH)

Administrative Assistant

Served as an administrative assistant in my first work experience at a Federally Qualified Health Center. Duties included rooming patients, reviewing histories, making appointments for imaging and consults, and coordinating care with hospitals, specialists, and insurance companies.

Swanton, VT Jun 2014 – Aug 2014

LEADERSHIP & SERVICE

UVM Larner College of Medicine Diversity, Equity and Inclusion

Member, volunteer

Worked on several Diversity, Equity and Inclusion projects, including curriculum development for Department of Emergency Medicine conferences in focus areas of race, gender, LGBTQ, New Americans, and housing instability. Participated in health screening and vaccination clinics held on dairy farms across the state to support migrant farmworkers with limited access to healthcare.

Burlington, VT Sep 2020 – present

New England Emergency Medicine Medical Student Council

Chair, Chair-Emeritus

Led regional council comprised of MD and DO students interested in Emergency Medicine. Duties included fostering collaboration among student groups across the region, connecting students with state and local leaders in Emergency Medicine, meeting with representatives from the American College of Emergency Physicians and the Emergency Medicine Residents' Association, and organizing Emergency Medicine-based educational, advocacy, and community service events. Now in my second year on the council, I am currently serving in an advisory role as Chair Emeritus.

New England Region March 2020 – present

UVM Larner College of Medicine Medical Student Ambassador

Ambassador, Multiple Mini Interview (MMI) Interviewer Supported Larner College of Medicine events for new and prospective students, community leaders and donors. Duties included organizing and attending events, providing perspective as a current student, and answering questions about my experiences. Additionally, interviewed medical school applicants and provided evaluations to admissions committee.

Burlington, VT January 2019 – present

Vermont Area Health Education Center (AHEC)

Scholar

Completed 80+ hours of inter-professional education in core topics of behavioral health integration, social determinants of health, cultural competency, practice transformation, and current and emerging health issues. Presented capstone project on physician perspectives of health services for Vermonters with intellectual disabilities at schoolwide public health poster session.

Vermont, statewide Sep 2019 – present

UVM Larner College of Medicine Big/ Little Sib Program

Big Sib

Served as mentor for first- and second-year medical students. Duties included meeting with 'little sibs' to provide insight on courses, board exams, research, clinical experiences and fun leisure activities in the Burlington area.

Burlington, VT Sep 2019 – present

UVM Larner College of Medicine Liaison Committee on Medical Education Independent Student Analysis Task Force

Co-Chair, Survey Success Committee

Served as a student leader in the Larner College of Medicine's reaccreditation efforts. Duties included drafting, editing and publicizing a survey as part of the Independent Student Analysis. Achieved 100% survey completion rate among nearly 500 medical students.

Burlington, VT Dec 2019 – May 2020

UVM Larner College of Medicine Smile Docs

Teacher, Head Teacher (Leader)

Taught classes in anatomy, physiology, health, and well-being to 3rd grade students at local elementary schools. Duties included preparing lesson plans and activities, teaching monthly classes, and coordinating schedules with schools and other medical students.

Burlington, VT Sep 2018 – May 2019

Harvard Undergraduate Council

Chair, Student-Faculty Committee; Member, Finance & Student Life Committees Served as the elected representative of 450 undergraduates on Harvard's student council. Duties included writing, passing, and implementing legislation in areas of education, safety, accessibility, mental health, and student life. Provided guidance and determined areas of focus as a committee chair and member of the council's executive board.

Cambridge, MA Sep 2015 – May 2018

Cambridge, MA Sep 2014 – May 2018 **Teacher**

Taught classes in government and civics to 5th grade students at Boston and Cambridge public elementary schools. Duties included preparing lesson plans and activities, teaching weekly classes, and coordinating schedules with schools and other college students.

AWARDS & GRANTS

Cardiovascular Research Institute Summer Research Fellowship Merit Award

Jan 2020

Presented at UVM Larner College of Medicine Class of 2022 Foundations Award Ceremony to most meritorious cardiovascular-related student research, for project "Vascular protection by IgG complexes that activate RYK."

Harvard College Paul F. Gilligan Memorial Fellowship

Mar 2017

Awarded annually to student who best demonstrates "an intellectual curiosity and academic achievement, combined with a love for participation in physical activity or athletic competition and a strength of character."

Harvard College Research Grant

Jan 2016

Awarded to support research project, "Role of AREG in axolotl limb regeneration."

PUBLICATIONS

Ben Liebman, Andrea Foote, Krithika Rao, Claire Schwaegler, **Edward Edwards**, Alexander Aronshtam, Stephen Bell, Prospero Gogo, Richard Lachapelle, Jeffrey Spees. "Human Growth Factor/IgG Complexes for Treatment of Myocardial Ischemia-reperfusion Injury." *Frontiers in Bioengineering and Biotechnology* (submitted). July 2021.

Peer-reviewed Article (Submitted)

Prasanna Kumar, **Edward Edwards**, Peter Callas, Roz King, Katherine Dolbec. "Impact of COVID-19 Preventative Measures on 2019-2020 Influenza Season in Vermont." *SAEM21 Abstracts*. May 4, 2021. https://doi.org/10.1111/acem.14249

Peer-reviewed Abstract

Edward Edwards, Emma Levine. "Nutritional Barriers for Patients with Diabetes: A Quality Improvement Project." *Family Medicine Clerkship Student Projects*. January 14, 2021. https://scholarworks.uvm.edu/fmclerk/631

Online publication (Non-peer reviewed)

Krithika Rao, Jessica Kloppenburg, **Edward Edwards**, Keara McElroy-Yaggy, Jeffrey Spees. "CTGF-D4 Amplifies LRP6 Signaling to Promote Grafts of Adult Epicardial-derived Cells that Improve Cardiac Function after Myocardial Infarction." *Stem Cells (accepted, in press)*. October 2020.

Peer-reviewed Article (In press)

Tianxin Miao, Andrew Little, Alexander Aronshtam, **Edward Edwards**, Spencer Fenn, Milena Hristova, Dimitry Krementsov, Albert van der Vliet, Jeffrey Spees, Rachael Oldinski. "Internalized FGF-2-Loaded Nanoparticles Increase Nuclear ERK1/2 Content and Result in Lung Cancer Cell Death." *Nanomaterials*. March 27, 2020;10(4):612. doi: 10.3390/nano10040612

Peer-reviewed Article (Published)

PRESENTATIONS

Emma Levine, Samantha Steinmetz-Wood, **Edward Edwards**, Allen Repp, Matthew Gilbert, Rachel McEntee, Tanesha Beebe. "Insulin Management for Hospitalized Patients with Type 1 Diabetes Melitus: A Quality Improvement Project." *American Medical Association Research Challenge*. Virtual. October 21, 2021

Poster Presentation

Emma Levine, Samantha Steinmetz-Wood, **Edward Edwards**, Allen Repp, Matthew Gilbert, Rachel McEntee, Tanesha Beebe. "Insulin Management for Hospitalized Patients with Type 1 Diabetes Melitus: A Quality Improvement Project." *Vermont Chapter of the American College of Physicians Annual Scientific Meeting.* Stowe, VT. October 15, 2021.

Oral Presentation

Edward Edwards, Prasanna Kumar. "Impact of COVID-19 Preventative Measures on 2019-2020 Influenza Season in Vermont." *Society for Academic Emergency Medicine*, 2021 National Meeting. Virtual. May 12, 2021

Oral Presentation

Edward Edwards, Prasanna Kumar. "Impact of COVID-19 Preventative Measures on 2019-2020 Influenza Season in Vermont." [Plenary oral]. *Society for Academic Emergency Medicine, New England Regional Meeting*. Virtual. April 7, 2021.

Poster Presentation

Maggie Carey, Gia Eapen, Adam Fakhri, **Edward Edwards**, Cara Rathmell, Claudia Russell, Nicole Wershoven, Elizabeth Cote, Michael Reilly, Stephen Everse. "Primary Care Perceptions: Health Services for Vermonters with Intellectual Disabilities." *Class of 2022 Public Health Project Poster Session*, *University of Vermont*. January 22, 2020.

Oral Lab Research Presentation

Edward Edwards. "Investigating the Role of Parallel Evolutionary Changes in COL1A2 and CREB3L1 Regulation on Primate Limb Proportions." *Harvard University Department of Human Evolutionary Biology*. May 2, 2018.

Oral Lab Research Presentation

Edward Edwards. "Investigating the Role of Parallel Evolutionary Changes in Biglycan Regulation on Primate Limb Proportions." *Harvard University Department of Human Evolutionary Biology*. December 12, 2017.

Joy Cruz

555 Cruz BLVD • S. Burlington, VT 05403 • JOYCRUZ@gmail.com • 802-922-5555

EDUCATION

The Robert Larner, M.D. College of Medicine at the University of Vermont

M.D. Doctor of Medicine

Expected May 2022

University of Vermont, Burlington, VT

B.S. Biological Science, minor in Molecular Genetics
M.S. Pharmacology

May 2015 October 2016

EXPERIENCE

Vermont Department of Disabilities, Aging & Independent Living, South Burlington, VT

June 2006 - Present

Personal Care Assistant and Respite Care Provider

- Care for and teach child with severe atypical autism and developmental delay for 10-40 hours per week
- Coordinate and support care team that include physicians, school administration, case manager, SLP, OT, and PT
- · Manage all medically related care such as medications and injuries

Keurig Dr Pepper, Essex Junction, VT

March 2020 - Jan 2021

COVID Screener

• Collaborated closely with Environmental Safety Dept for prevention and contingency of COVID-19 for 32-40 hours per week

University of Vermont Medical Center Hematology/Oncology, South Burlington VT

March 2018 - March 2019

Albert Schweitzer Fellow

- Expanded upon the Step Up program, a twelve-week nutritional-based and community-based weight management program for cancer survivors
- Broadened the program to include both men and women who participated in monitored diary tracking and weekly educational classes focusing on behavioral interventions
- Through this integrative and personalized approach, participants were encouraged to adopt and maintain sustainable healthy lifestyle changes
- Led weekly small group teaching and discussion for 10 weeks with overall project hours spent at >200 hours

Larner College of Medicine at the University of Vermont, Burlington, VT

Sept 2017 - May 2018

SMILE Docs (Students of Medicine Involved in Local Education – Doctors Ought to Care) Member

- Volunteered to teach basic medical science to local elementary school students
- Visited schools 5 times per semester, taught 1.5 hours per classroom session

Here to Help Clinic Volunteer

Sept 2017 – May 2018

• Assisted in cooking and serving food as part of monthly service day (8 hours per month) that provides free essential services including clothing, haircuts, toiletries for the Burlington homeless community

UVM (University of Vermont) PEP (Pre-Medical Enhancement Program) Mentor

Sept 2017 - May 2018

 Mentored an undergraduate new member of UVM's PEP considering the medical field few hours per month including a shadow day with him

University of Vermont Medical Center, Burlington, VT

Nov 2013 - Aug 2017

Licensed Nursing Assistant

- · Oversaw patient care on Hem/Onc unit including daily care, measuring vital signs and blood sugar
- Collaborate as part of the medical team to promote patient safety and treatment success
- Float throughout the hospital to work on the floor or as a 1:1 patient attendant for at risk patients

BioEnterprise Corporation, Cleveland, OH

June 2012 – Aug 2012

Business Development Associate

- Performed due diligence and market research on new business opportunities for early stage medical device, pharmaceutical, healthcare IT, and life science companies
- Conducted operational feasibility studies, market segment analysis, strategic growth planning, I.P. assessment, regulatory/reimbursement process studies, and commercialization plan/grant revision
- Served on consulting team for multi-million dollar company to devise research and regulatory plan
- Identified high potential target consumers, partners, and competitors for clients

National Institute of Mental Health, Bethesda, MD

March 2012

Joy Cruz

111 Cruz BLVD • S. Burlington, VT 05403 • JOYCRUZ29@gmail.com • 802-922-0000

Explored GWAS and microarray technology in schizophrenia-related research using fetal and adult brains

Kindred Healthcare, Starr Farm Nursing Center, Burlington, VT

April 2011 - Sept 2011

Licensed Nursing Assistant

- Oversaw basic patient care for 30+ residents with special needs including Alzheimer's, Parkinson's, stroke, cancer, and quadriplegic patients as well as those in recovery from various surgeries
- Analyzed residents' chart information to report conditions to nurses/doctors for optimal treatment

RESEARCH

University of Vermont Medical Center Dermatology, Burlington, VT

June 2018 – Present

Research Coordinator

- Manage IRB compliance and personnel training for 1-2 hours per week
- Responsible for initial and annual research certifications for team of 20 researchers

University of Vermont Medical Center Pulmonary/Critical Care Medicine, Burlington, VT

Aug 2016 – Aug 2017

Clinical Research Coordinator

- Managed clinical research protocols for various Pulmonary/Critical Care clinical trials: submission of protocols and related documents to the IRB, recruitment, enrollment, care, data/sample collection
- Coordinated and communicated with sponsors, monitors, IRB, investigators, and patients

University of Vermont Medical Center Emergency Department, Burlington, VT

Research Associate Volunteer

Jan 2016 – May 2016

Supervised and taught student research associates in screening, enrolling, and lab work for clinical studies

Student Research Associate Volunteer

Jan 2015 – May 2015

• Screened and enrolled ED patients/EMT providers for clinical studies; data collection, transfer of blood from syringe to tubes

University of Vermont Cancer Center/Department of Surgery, Burlington, VT

June 2010 - Sept 2010

Research Assistant

- · Systemized observations/data through Excel spreadsheet, graphs, and enabled PowerPoint presentations of them
- Evaluated sliced mouse breast tumor and other tissues under microscope to determine spread of tumor cells

Hospitalist Project at University of Chicago Department of Medicine, Chicago, IL

March 2010 – June 2010

Research Assistant

- Collected and analyzed patient data on Hospitalist online database system to study health outcomes
 of patients and cost-effectiveness of care in hospitals with emphasis on the elderly
- Catalyzed implementation of hospital policy to cap medical resident working hours at 12
- Interviewed patients to collect necessary data on hospitalization experiences

PUBLICATIONS

Larner College of Medicine at the University of Vermont, Burlington, VT

August 2020

- Published "Migrant Farm Workers Flu Clinic" (2020). Family Medicine Clerkship Student Projects. 639. https://scholarworks.uvm.edu/fmclerk/639
- Collaborated with UVM Extension Bridges to Health and Colchester Family Practice to provide free satellite flu clinics to Northern Vermont Latino dairy farmworkers
- Organized and inoculated 48 undocumented farmworkers at 12 dairy farms

Larner College of Medicine at the University of Vermont, Burlington, VT

June 2018 – March 2019

- Published Gross, Brian; Harrison, Olivia; Larkin, Olivia; Love, Collin; Meagher, Sean; Joy Cruz; Udawatta, Stephanie;
 Lounsbury, Karen; and Schwarz, Rebecca, "The Halo Effect: Does In-Hospital Art Intervention Result in Improved Overall Patient Satisfaction?" (2019). Public Health Projects, 2008-present. 284. https://scholarworks.uvm.edu/comphp_gallery/284
- Investigated the qualitative impact of art therapy (in-hospital art intervention) on overall patient satisfaction
- Presented at Public Health Projects Poster Session Jan 23, 2019

ACTIVITIES AND LEADERSHIP

Integrative Health Student Interest Group at Larner College of Medicine Burlington, VT *Member*

August 2017 - March 2019

Joy Cruz

23 Cruz BLVD • S. Burlington, VT 05403 • Joy Cruz@gmail.com • 802-922-5555

Participated in regular integrative health events centered on holistic care incorporation in medical practice

Yoga Student Interest Group at Larner College of Medicine, Burlington, VT *Member*

August 2017 - March 2019

• Participated in weekly evening yoga classes

Med Mentors Student Interest Group Health Career Exploration Day, Burlington, VT

March 24, 2018

Volunteer

- Provided Vermont high schoolers with a classroom experience of the health sciences to promote interest in healthcare careers
- Promoted interest in health sciences to local high school students

Family Medicine Student Interest Group, Burlington, VT

May 12, 2018

Volunteer

- Taught local middle school girls medicine-related topics for Girls Exploration Day
- Promoted interest in health sciences to young local students

Alpha Phi Omega, University of Chicago

March 2010 - Dec 2011

Member

• Prepared meals weekly for local community members

MEMBERSHIP

Professional Memberships: American Psychiatric Association, American Academy of Child and Adolescent Psychiatry, American Medical Association, Asian Pacific American Medical Student Association

SKILLS

Licensure: Licensed Nursing Assistant (Vermont, expires 11/2022) **Language:** Native in Mandarin Chinese, conversant in French

Hobbies: Elite Yelper, recreational tennis player, fragrance and skincare enthusiast, traveling