# **CURRICULUM VITAE**

### **Eliaz Brumer, MD**

## **Date:** January 1, 2024

## **Contact Information:**

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## **Education:**

10/2006 - 06/2013 MD, Joyce & Irving Goldman, Medical school, Ben Gurion University of the Negev., Be'er Sheva, South District, Israel

08/1998 – 12/1999 Practical Engineer in Electrical Engineering and Electronics, Technician – Institute for Technological Training, Haifa, Israel.

## **Career/Academic Appointments:**

06/2012 - 05/2013 Rotating internship Rambam Health Care Campus, Haifa, Israel.

07/2013 - 01/2018 Pediatric Residency, Department of Pediatrics B, Ruth Rappaport Children's Hospital, Rambam Health Care Campus, Haifa, Israel

Chief resident, Pediatrics Division 10/2016-10/2017

07/2017 - 05/2020 Pediatrician, After-Hours Urgent Care Centers, Maccabi Healthcare, Haifa, Israel

01/2018 - 05/2018 Junior Attending Physician, Department of Pediatrics B, Ruth Rappaport Children's hospital, Rambam Health Care Campus, Haifa, Israel

05/2018 - 05/2020 Pediatrician, Community Medicine, Clalit Health Care Services, Nesher, Israel.

11/2018 - 05/2020 Junior Pediatric Attending Physician, Pediatric Emergency Department, Ruth Rappaport Children's hospital, Rambam Health Care Campus, Haifa, Israel

07/2020 – 06/2023 Pulmonary Fellow, Pediatric Respiratory, Allergy/Immunology & Sleep Medicine Section, Yale New Haven Hospital, Yale School of Medicine, New Haven, CT, USA

07/2023-Present Resident, Department of Pediatrics, Yale New Haven Hospital, Yale School of Medicine, New Haven, CT, USA. Distinction Pathways in Quality Improvement, Patient Safety & Leadership

## **Professional Training and Courses:**

08/2013 APLS - Advanced Pediatric Life Support, Rambam Health Care Campus, Haifa, Israel

01/2014 ATLS - Advanced Trauma Life Support, Provider Course, The Israel Association for The Advancement of Trauma Care

02/2014 GCP and Clinical trials management for principal investigators (PI),  
Rambam Health Care Campus

10/2014 Safety training in sedation for children without an Anesthesiologist – MSE  
Israel Center for Medical Simulation

01/2015 Undersea and Hyperbaric Medicine Basic Course, INMI – The Israeli Naval Medical Institute

12/2015 PALS Provider; Pediatric Advanced Life Support, Magen David Adom, TC, Rambam Health Care Campus, Haifa, Israel

09/2016 NRP - Neonatal Resuscitation Program, The Israel Neonatal Society, Rambam Health Care Campus, Haifa, Israel

01/2017 HBOT - Hyperbaric Oxygen Therapy Course, INMI – The Israeli Naval Medical Institute, Rambam Health Care Campus, Haifa, Israel

02/2018 The 20 Best Muscles of the Society using the dry-needling technique "Intramuscular Stimulation," The Israeli Society of Musculoskeletal Medicine, Tel-Aviv, Israel

02/2019 Safety training in sedation for children without an Anesthesiologist - Rambam Health Care Campus, Haifa, Israel

01/2020 APLS - Advanced Pediatric Life Support, Rambam Health Care Campus, Haifa, Israel

09/2021 ECMO (Extra Corporeal Membrane Oxygenation) Course. Department of Pediatrics, Yale School of Medicine, Yale New Haven Hospital, CT

12/2021 Good Clinical Practice Course (US FDA focus), Refresher Course, Yale University Training Opportunities, CITI (Collaborative Institutional Training Initiative)

02/2022 Introduction to Simulation and Debriefing Simulation, Advancing Patient Safety and Education (SYN:APSE) Center for Learning, Transformation, and Innovation, Yale New Haven Hospital, CT, USA

06/2023 PALS- Pediatric Advanced Life Support, American Heart Association, Yale New Haven Hospital/ Yale School of Medicine, New Haven, CT, USA

06/2023 NRP- Neonatal Resuscitation Program, American Academy of Pediatrics, Yale New Haven Hospital/ Yale School of Medicine, New Haven, CT, USA

## **Administrative Appointments:**

2023-Present Member, The Pediatric Pulmonary Hypertension Network (PPHNet)

## **Professional Honors & Recognition:**

2017 Recognition from Haifa ROTARY Club Foundation for the work at the Ruth Rappaport Children’s Hospital and the dedication to the children and their families, Haifa ROTARY Club Foundation

2023 North American Cystic Fibrosis Conference (NACFC) Resident Roundtable Award, Cystic Fibrosis Foundation, USA.

## **Board Certification:**

## 06/2014 ECFMG diploma - Educational Commission for Foreign Medical Graduates

02/2018 Israel Board of Pediatrics

04/2016 Diving Physician – First Division– Israel Medical Association, Scientific Council

## 06/2021 USMLE Step 3

06/2023 Israel Board of Pediatric Pulmonology

## **Certifications:**

12/2021 Good Clinical Practice Course (US FDA focus), 2 - Refresher Course, Yale University Training Opportunities, CITI, Collaborative Institutional Training Initiative

06/2022 Fellows as Medical Educators (FAME), Yale School of Medicine, Yale New Haven Hospital, New Haven, CT, USA

06/2023 Clinical Fellow in Pediatric Pulmonology and Respiratory Medicine, Yale New Haven Medical Center, New Haven, CT, USA

## **Professional Organizations:**

2013 - present Member, Israel Society for Clinical Pediatrics

2013 - present Member, Israel Medical Association

2016 - present Member, Diving Doctors, Israel Diving Authority

2018 - present Member, The Israeli Society of Musculoskeletal Medicine

2020 - present Member, Pediatric Assembly, American Thoracic Society

## **Research:**

2009 - 2012 Structure and function of the presynaptic terminal in central nervous system (CNS) neurons. Studying the linkage between endocytosis and activity-dependent synaptic vesicle mobilization. Examination of in vivo translation processes by optic resources. Research at the laboratory of Dr. Daniel Gitler – Physiological and Neurobiology Department, Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel

2014 - 2017 Development of a new isotonic drink rich with antioxidants for athletes and the general population, with an emphasis on populations suffering from metabolic syndrome, heart disease and patients who are hospitalized. Producing a version adapted for children. Research and collaboration with the laboratory of Assoc. Prof. Yoav D. Livney - lab of Food Physical Chemistry & Biopolymeric Delivery systems for health, Technion – Israel institute of technology & Prof. Michael Aviram, Professor of Biochemistry, Head of Lipid Research Laboratory, Technion Rappaport Faculty of Medicine, Haifa, Israel.

2020-Present Investigate the prescribing practices of healthcare providers who specialize in Cystic Fibrosis (CF) care. Specifically focusing on understanding whether there are any disparities and potential inequities in the prescribing practices of physicians with regards to cystic fibrosis transmembrane regulator (CFTR) modulator therapy among eligible patients.

## **Quality Improvement:**

1/2021 – 5/2022 Project Lead, Asthma Project - Ensuring Timely Pulmonary Follow up After an Inpatient Asthma Hospitalization

1/2022 – 6/2023 Project Lead, Bronchopulmonary Dysplasia (BPD) - Ensuring Consistent Diagnosis, Adherence to Guidelines, and Timely Pulmonary Follow up After NICU discharge for all infants diagnosed with BPD.

## **Development of digital educational resources:**

2023-Present APPD Pediatric Subspecialities Flipped Classroom Curriculum

PEPTDA Pediatric Pulmonary Elective Curriculum

## **Grants:**

2016 Clinical Research Grant for Residents at Rambam Health Care Campus. "Development of new isotonic drink rich with antioxidants from pomegranate juice, testing its effect on oxidative stress and performance of the athlete during exercise."

## **Bibliography:**

### **Peer-Reviewed Original Research**

1. Levy S, Wilms CD, **Brumer E**, Kahn J, Pnueli L, Arava Y, Eilers J, Gitler D. SpRET: highly sensitive and reliable spectral measurement of absolute FRET efficiency. Microscopy And Microanalysis : The Official Journal Of Microscopy Society Of America, Microbeam Analysis Society, Microscopical Society Of Canada 2011, 17: 176-90. [PMID: 21333032](https://pubmed.ncbi.nlm.nih.gov/21333032), [DOI: 10.1017/S1431927610094493](https://doi.org/10.1017/S1431927610094493).
2. Orenbuch A, Shulman Y, Lipstein N, Bechar A, Lavy Y, **Brumer E**, Vasileva M, Kahn J, Barki-Harrington L, Kuner T, Gitler D. Inhibition of exocytosis or endocytosis blocks activity-dependent redistribution of synapsin. Journal Of Neurochemistry 2012, 120: 248-58. [PMID: 22066784](https://pubmed.ncbi.nlm.nih.gov/22066784), [DOI: 10.1111/j.1471-4159.2011.07579.x](https://doi.org/10.1111/j.1471-4159.2011.07579.x).
3. Shavit I, **Brumer E**, Shavit D, Eidelman M, Steiner IP, Steinberg C. Emergency Department Pain Management in Pediatric Patients With Fracture or Dislocation in a Bi-Ethnic Population. Annals Of Emergency Medicine 2016, 67: 9-14.e1. [PMID: 26343348](https://pubmed.ncbi.nlm.nih.gov/26343348), [DOI: 10.1016/j.annemergmed.2015.07.497](https://doi.org/10.1016/j.annemergmed.2015.07.497).
4. **Eliaz Brumer**, MD, David E. de Ángel Solá, MD, Mary-Jane Hogan, MD, Laura Chen, MD. Persistent hypoxemia in an asymptomatic 4-year-old boy. Pediatr Rev. 2023 May 1;44(5):290-293. [PMID: 37122046.](https://pubmed.ncbi.nlm.nih.gov/37122046/) DOI: [10.1542/pir.2021-005293](https://doi.org/10.1542/pir.2021-005293).
5. Sanjiv Godse, MD, **Eliaz Brumer**, MD, Tuba Kockar, MD, Craig Canapari, MD, Cicero Silva, MD, Raffaella Morotti, MD, Yong-Hui Jiang, MD, PhD, Laura Chen, MD, Sherin Panacherry, MD. When lungs and weights tell different stories. Pediatric Pulmonology, Accepted in December 2023.
6. **Eliaz Brumer**, MD, Veronika Shabanova, PhD, Joseph V. Rosano, PharmD, Mark R. Mercurio, MD, Laura Chen, MD, Beverley Sheares, MD, Marie E. Egan, MD. CFTR modulators prescription rates in the pediatric cystic fibrosis population. Jama Pediatric, Submitted for review in December 2023.
7. **Eliaz Brumer**, MD, Sanjiv Godse, MD, Leela Chandrasekar, MD, Tuba Kockar Kizilirmak, MD, Eleanor Blythe, PA, Yeisid Gozzo, MD, Steven Peterec, MD, Sarah Kandil, MD, Matthew Grossman, MD Laura Chen, MD, Pnina Weiss, MD, MHPE, Beverley Sheares, MD. Quality Improvement Initiative Enhances Outpatient Pediatric Pulmonology Follow-Up for Premature Infants with Bronchopulmonary Dysplasia. Pediatric Quality & Safety, Submitted for review in November 2023.

### **Peer-Reviewed Abstract Presentations.**

1. **Brumer E**, Shavit I, Shavit D, Eidelman M, Steiner IP, Steinberg C. Emergency Department Pain Management in Pediatric Patients with Fracture or Dislocation in a Bi-Ethnic Population. [abstract]. Oral Presentation ISPEM - Israeli Society for Pediatric Emergency Medicine, Tel Aviv, Israel. November 2015.
2. **Eliaz Brumer**, MD, Christie Cherian, MD, Sanjiv Godse, MD, Tuba Kockar Kizilirmak, MD, Matthew Grossman, MD, Laura Chen, MD, Beverley Sheares, MD. Ensuring Timely Pulmonary Follow up After an Inpatient Asthma Hospitalization: A Quality Improvement Initiative. [abstract]. Poster presentation at the ATS 2022 International Conference, San Francisco, California, May 2022.
3. Rashi Kochhar, MD, **Eliaz Brumer**, MD, Craig Canapari, MD. Sleep Disordered Breathing in a case series of 4 children with Trisomy 18. [abstract]. Poster presentation at the 36th Annual Meeting of the Associated Professional Sleep Societies, LLC (APSS), Charlotte, North Carolina, June 2022.
4. **E. Brumer**, MD, S. Godse, MD, L. Chandrasekar, MD, T. Kockar Kizilirmak, MD, E. Blythe, PA, Y. Gozzo, MD, S. Peterec, MD, S. Kandil, MD, L. Chen, MD, P. Weiss, MD, B. Sheares, MD. Standardizing BPD diagnosis, classification, and pulmonary follow up in the NICU: A QI initiative. [abstract]. Poster presentation at Yale Pediatric Research Forum, Yale University, May 2023.
5. T. Kockar Kizilirmak, **E. N. Brumer**, S. Panacherry, M. E. Egan, Hemoptysis in The Time Of Covid. [abstract]. Poster presentation at the ATS 2023 International Conference, Washington, DC, May 2023.
6. **Eliaz Brumer**, Veronika Shabanova, Joseph V. Rosano, Mark R. Mercurio, Laura Chen, Beverley Sheares, Marie E. Egan, CFTR modulator therapy prescription rates in the pediatric cystic fibrosis population, a decade of care. [abstract]. Poster presentation at the NACFC 2023 International Conference, Phoenix, AZ, November 2023.

## **Local Presentations**

01/2014 Speaker, End-of-Life Decisions and Euthanasia in Pediatrics; Pediatric Department, Ruth Rappaport Children's Hospital, Rambam Health Care Campus, January 2014, Haifa, Israel

10/2015 Speaker, Carbon monoxide poisoning; Pediatric Department, Ruth Rappaport Children's Hospital, Rambam Health Care Campus, October 2015, Haifa, Israel

05/2017 Presenter, Withholding and Withdrawing Life Saving Treatment in Children; Pediatric Division, Ruth Rappaport Children's Hospital, Rambam Health Care Campus, May 2017, Haifa, Israel

10/2020 Presenter, Lung Growth and Development; Pulmonary Seminar, Respiratory, Allergy-Immunology, and Sleep Medicine Section, Yale School of Medicine New Haven, CT

11/2020 Presenter, Ventilation; Pulmonary Seminar, Respiratory, Allergy-Immunology, and Sleep Medicine Section, Yale School of Medicine New Haven, CT

01/2021 Presenter, Gas Exchange; Pulmonary Seminar, Respiratory, Allergy-Immunology, and Sleep Medicine Section, Yale School of Medicine New Haven, CT

01/2021 Presenter, Bronchoscopy Conference, Are We Doing the Right Thing? Pulmonary Seminar, Respiratory, Allergy-Immunology, and Sleep Medicine Section, Yale School of Medicine New Haven, CT

02/2021 Presenter, Acid-Base Balance; Pulmonary Seminar, Respiratory, Allergy-Immunology, and Sleep Medicine Section, Yale School of Medicine New Haven, CT

03/2021 Presenter, Airway Epithelium and Mucous; Pulmonary Seminar, Respiratory, Allergy-Immunology, and Sleep Medicine Section, Yale School of Medicine New Haven, CT

04/2021 Presenter, Aerosol Deposition and Clearance; Pulmonary Seminar, Respiratory, Allergy-Immunology, and Sleep Medicine Section, Yale School of Medicine New Haven, CT

09/2021 Presenter, Anatomy of the Lungs; Pulmonary Seminar, Respiratory, Allergy-Immunology, and Sleep Medicine Section, Yale School of Medicine New Haven, CT

10/2021 Presenter, Blood Flow to the Lungs; Pulmonary Seminar, Respiratory, Allergy-Immunology, and Sleep Medicine Section, Yale School of Medicine New Haven, CT

12/2021 Presenter, Physiology of Diving; Pulmonary Seminar, Respiratory, Allergy-Immunology, and Sleep Medicine Section, Yale School of Medicine New Haven, CT

10/2022 Presenter, BPD: Updates and management; Pulmonary Seminar, Respiratory, Allergy-Immunology, and Sleep Medicine Section, Yale School of Medicine New Haven, CT

02/2023 Presenter, Physiology - Control of breathing, Pulmonary Seminar, Respiratory, Allergy-Immunology, and Sleep Medicine Section, Yale School of Medicine New Haven, CT

## **Teaching Experience:**

2007 - 2012 Primary anatomy course tutor for second year medical students in the Medical School for International Health, Ben Gurion University of the Negev/Columbia University

2009 -2011 Tutor in Medical Thinking course for first year medical students, Joyce & Irving Goldman, Faculty of Medicine, Ben Gurion University of the Negev. Israel. The course included lectures and case-based discussions that helped students develop critical thinking skills.

05/2017 Simulator Instructor, Pediatric Advanced Life Support course, Fifth year medical students, The Ruth and Bruce Rappaport Faculty of Medicine, Haifa, Israel

11/2017-12/2017 Instructor, Pediatrics Clerkship, Fifth year medical students, The Ruth and Bruce Rappaport Faculty of Medicine, Haifa, Israel

11/2017-12/2017 Coordinator, Pediatrics Clerkship, Fifth year medical students, Department of Pediatrics B, Ruth Rappaport Children's Hospital, Rambam Health Care Campus, Haifa, Israel

02/2018 Instructor, Pediatrics Clerkship, Sixth year medical students, The Ruth and Bruce Rappaport Faculty of Medicine, Haifa, Israel

08/2021 Instructor, Asthma Management; Intern Academic Half Day, Department of Pediatrics, Yale School of Medicine, New Haven, CT

11/2021 Instructor, Outpatient Management of Asthma, Pediatric Primary Care Academic Half Day, Department of Pediatrics, Yale School of Medicine, New Haven, CT

04/2022 Workshop Instructor, Homeostasis Course, Neonatal Respiratory Distress Syndrome, Bronchopulmonary Dysplasia, and Bronchiolitis, First year medical students, Yale School of Medicine, New Haven, CT

08/2022 Instructor, Differential Diagnosis of Hypoxemia, Pediatric Residents’ Noon Conference, Department of Pediatrics, Yale School of Medicine, New Haven, CT

08/2022 Instructor, Outpatient Management of Asthma, Pediatric Residents’ Noon Conference, Department of Pediatrics, Yale School of Medicine, New Haven, CT

01/2023 Instructor, Status Asthmaticus, Pediatrics Residents, Co-Debrief Simulation, ED YNHH, Department of Pediatrics, Yale School of Medicine, New Haven, CT

01/2023 Instructor, Diabetic ketoacidosis, Medical students, Co-Debrief Simulation, Sim Center, Department of Pediatrics, Yale School of Medicine, New Haven, CT

02/2023 Instructor, Foreign body aspiration, Emergency Medicine Residents, Co-Debrief Simulation, Sim Center, Department of Pediatrics, Yale School of Medicine, New Haven, CT.

07/2023 Instructor, Differential Diagnosis of Hypoxemia, Pediatric Residents’ Noon Conference, Department of Pediatrics, Yale School of Medicine, New Haven, CT