Alon Ben-Ari, MD, MSc

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Chief Medical Information Officer

Physician, data scientist, and executive, improving healthcare quality, access, and utilization with informed decision making.

LEADERSHIP EXPERIENCE

VA Norther California Healthcare System ▪ Sacramento, CA　　　　　　　　　　　**2017-Present**

Chief Medical Information Officer, Associate Chief of Staff for Clinical Informatics NCHCS

- **Led** the Health Care System telehealth's arm, serving 100,000 patients; architected a one-stop-shop customer-oriented web kiosk catering to staff's needs; managed training and certification; supervised equipment maintenance and preventive maintenance schedules. **Architected** a telehealth chat-bot supporting initial telehealth visits, deployed nationally.
- **Designed**, **built** and **implemented** an omnichannel scheduling application, resulting in a 10-fold increase in same-day scheduling and saving 500 man-hours per month at the call center.
- **Developed** and prototyped a patient-facing pre-operative tool leveraging enterprise-grade authentication tools alongside a parallel clinical-facing graphical web tool; patent granted; Implemented tracking system for malignancy on VA GovCloud.
- **Pioneered** the development and deployment of a pharmacy curbside medication pick-up tool, used by over 10,000 patients at the peak of COVID-19 (1st at the VA). Supported mass vaccination events by simulating operations, creating staffing models, and optimizing queues, which increased daily vaccination capacity to over 700 doses. Implemented a comprehensive COVID-19 reporting system for patients and staff. Enabled continuity of care, increase patient satisfaction and quality of care.
- **Oversaw** Veterans Equitable Resource Allocation (VERA) the Funding Model for healthcare system.
- **Chaired** the Clinical Informatics Committee and Data Governance and the Artificial Intelligence Data Governance Committee.
- **Voting member** of the Veterans Health Administration Data Governance Council (VHA DGC), a VA Central Office Council reporting to the VA Board of Governors, and the Data Reporting Analytics Capability Management Board (DRAMB), a cross-VHA capability management board authorizing funding for enterprise analytics.

Puget Sound VA Healthcare System ▪ Seattle, WA　　　　　　　　　　　**2012-2017**

Director of Regional Anesthesia, Department of Anesthesia

- **Directed** the implementation of best practices in post-surgical acute pain management in the Department of Anesthesia. Oversaw staff development, and ensured adherence to the highest standards of care. Improving patient satisfaction.
- **Spearheaded quality improvement** initiatives that enhanced patient care and operational efficiency within the Department of Anesthesia. Collaborated with surgeons, nurses, and other healthcare professionals to create a cohesive approach to patient care, leading to better patient outcomes.
- **Conducted research** and published findings in top tier medical journals, contributing to the body of knowledge in the field.

CLINICAL \ ACADEMIC

UNIVERSITY OF CALIFORNIA DAVIS | Associate Professor | 2017 - Present
Staff Anesthesiologist, Department of Anesthesia

UNIVERSITY OF WASHINGTON | Assistant Professor | 2012 - 2017
Staff Anesthesiologist, Department of Anesthesia, VA Puget Sound Healthcare Network

UNIVERSITY OF PITTSBURGH | Instructor | 2007 - 2011
Staff Anesthesiologist, Acute Interventional Postoperative Pain Service. Clinical Trials & Safety Co-Investigator.

HADASSAH, HEBREW UNIVERSITY HOSPITAL | Fellow and resident | 2001 - 2007
Spearheaded the development of a therapeutic tissue engineering based technology.

EDUCATION

STANFORD, CA | Biomedical Informatics, Stanford's School of Medicine, MSc

TECHNION – ISRAEL INSTITUTE OF TECHNOLOGY | School of Medicine, MD

CYBER DEFENSE AND COMPUTING – ISRAELI DEFENSE FORCE | Programing

EXPERTISE

+ Thought Leadership and Team Development 　+ Omnichannel and consumer experience 　　+ Hospital Management
+ Data architecture and integration 　　　　+ Quality of Care and patient satisfaction 　+ Telehealth and digital care

Technical Proficiencies: Python, JavaScript, Web Development, SQL, ASP.NET, C#, R statistical, Mobile and wearable integration

CERTIFICATION AND LICENSING

MEDICAL LICENSE:

Unrestricted license in medicine #MD438007, Pennsylvania | 2009 – Present
Unrestricted license in medicine # 34268, Israel | 2009 – Present

SPECIALTY CERTIFICATION:

Specialist in Anesthesia, Israel Board of Anesthesia # 26312 | 2008 - Present
European Academy of Anesthesiology (DEAA) | 2007 - Present

PATENTS

Secure Computer-Based Pre-Operative Assessment | 2022

LANGUAGES

English, French, Arabic, Hebrew

PUBLICATIONS

PENDING WORK:
- Optimizing referral networks. An agent-based simulation approach to the problem of access to care. September 21st 2023, TEDxVeteransAffairs Orlando
- **Ben-Ari A.,** Carney K., Cahill W., Tu SP. Massive vaccination events. A simulation approach to optimize flow and staffing model.
- **Ben-Ari A.**, George H., Bigeleisen PE. Scaling laws and self-similarity in outpatient referral networks. A Veterans Health Administration (VHA) wide study employing network analysis.
- **Ben-Ari A.** Bigeleisen PE Optimizing referral networks. An agent-based simulation approach to the problem of access to care.

PEER REVIEWED:
- Borkowski A. and **Ben-Ari A.**, 2025. AI agents in healthcare comprehensive review. *Federal Practitioner*, accepted
- Starr J., Rozet I. and **Ben-Ari A.**, 2018. A Risk Calculator Using Preoperative Opioids for Prediction of Total Knee Revision Arthroplasty. *The Clinical journal of pain*, 34(4), pp.328-331.
- Lee A.T., Gagnidze A., Pan, S.R., Sookplung P., Nair B., Newman S.F., **Ben-Ari A.**, Zaky A., Cain K., Vavilala MS. and Rozet I., 2017. Preoperative low-dose aspirin exposure and outcomes after emergency neurosurgery for traumatic intracranial hemorrhage in elderly patients. *Anesthesia & Analgesia*, 125(2), pp.514-520.
- Baciewicz AM., Lee C., **Ben-Ari A**., Kim H., Lee AT. Intravenous Tissue Plasminogen Activator Administration for Ischemic Stroke 1 Hour After Epidural Catheter Removal: A Case Report. A&A Case Reports. 2017 Jan 11.
- **Ben-Ari A.**, Chansky H., Rozet I. Preoperative Opioid Use Is Associated with Early Revision After Total Knee Arthroplasty. *Journal of Bone and Joint Surgery (JBJS)*, 2017 Jan 4;99(1):1-9.
- **A. Ben-Ari** and K. Hammond, "Text Mining the EMR for Modeling and Predicting Suicidal Behavior among US Veterans of the 1991 Persian Gulf War," *2015 48th Hawaii International Conference on System Sciences*, 2015, pp. 3168-3175, doi: 10.1109/HICSS.2015.382.
- Hammond KW., **Ben-Ari A**, Laudry RJ., Boyko E, Samore MH. The Feasibility of Using Large Scale Text Mining To Detect Adverse Childhood Experiences in a VA-Treated Population. Journal of Traumatic Stress. Journal of Trauma and Stress 2015 Dec;28(6):505-14.
- **Ben-Ari A.,** Hammond KW. Text Mining the EMR for Modeling and Predicting Suicidal Behavior among US Veterans of the 1991 Persian Gulf War. *IEEE Hawaii International Conference on System Sciences (HICCS)*, 2015.
- **Ben-Ari A.**, Moreno M., Chelly JE., Bigeleisen PE. Ultrasound-Guided Paravertebral Block Using an Intercostal Approach. *Anesthesia Analgesia* 2009;109(5):1691-4.
- **Ben-Ari A.**, Joshi R., Chelly JE. Ultrasound Localization of the Sacral Plexus Using a Parasacral Approach. *Anesthesia Analgesia* 2009;108(6):1977-1980.
- **Ben-Ari A.**, Rivkin R., Miryam F., Gaberman E., Levdansky L., Gorodetsky R. Isolation and Implantation of Bone Marrow-Derived Mesenchymal Stem Cells with Fibrin Micro Beads to Repair a Critical-Size Bone Defect in Mice. *Tissue Engineering* Part A 2009;15(9):2537-46.
- Rifkin R., **Ben-Ari A.**, Gorodetzky R. High yield Isolation Expansion and Differentiation of Murine Bone Marrow Derived Mesenchymal Stem Cells Use in Fibrin Microbeads (FMB). *Cloning and Stem Cells* 2007;9(2):157-75.
- **Ben-Ari A**, Lewis MC, Davidson E. Chronic administration of ketamine for analgesia. *Journal of pain & palliative care pharmacotherapy*. 2007 Jan 1;21(1):7-14.
- **Ben-Ari A.**, Gershkovich P., **Ben-Ari A.**, Shaish A., Liberman Y., Boutboul E., Gotkine M., Hoffman A., Harats D., Leitersdorf E., Meiner V. Rifampicin-Induced CYP3A4 Activation in CTX Patients Cannot Replace Chenodeoxycholic Acid Treatment.

Biochimica et Biophysica Acta 2007; 1771(7):839-844.

- Lewis MC., Nevo I., Paniagua MA., **Ben-Ari A.**, Pretto E., Eisdorfer S., Davidson E., Matot I., Eisdorfer C. Uncomplicated General Anesthesia in the Elderly Results in Cognitive Decline: Does Cognitive Decline Predict Morbidity and Mortality? Medical Hypotheses 2007;68(3):484-92.
- **Ben Ari A.**, Elinav E., Elami A., Matot I. Off-Pump Coronary Artery Bypass Grafting in a Patient with Child Class C Liver Cirrhosis Awaiting Liver Transplantation. British Journal of Anaesthesia 2006;97(4):468-472.
- Shimony N., Gorodetsky R., Marx G., Gal D., Rivkin R., **Ben-Ari A.**, Landsman A., Haviv YS. Fibrin Microbeads (FMB) as a 3D Platform for Kidney Gene and Cell Therapy. *Kidney International* 2006;69(3):625-633.

REVIEWS:
- **Ben-Ari A.,** Lewis MC., Davidson E. Prolonged Administration of Ketamine for Analgesia. *Journal of Pain & Palliative Care Pharmacotherapy* 2007;21(1):7-14.
- **Ben-Ari A.**, Davidson E. Ketamine for Chronic Pain. *The Israeli Journal of Symptoms and Pain Control* 2006;16:16-23.
- Pawar R., **Ben-Ari A.** Domb AJ. Protein and Peptide Parenteral Controlled Delivery. *Expert Opinion on Biological Therapy* 2004;4(8):1203-12.

BOOK CHAPTERS:
- Biegeleisen PE., Ben-Ari A., Fanelli A., Ghisi DEF. Ultrasound Guided Thoracic Paravertebral Pectoralis, and Serratus Anterior Blocks, in *Ultrasound-Guided Regional Anesthesia and Pain Medicine*, ed. Biegeleisen PE.(Wolters Kluwer, 2015).
- **Ben-Ari A.**, Ben-David B. Ultrasound Guided Parasacral Block, in *Ultrasound Guided Regional Anesthesia and Pain Medicine*, ed. Biegeleisen PE. (LW&W, 2009), 120-122.
- Biegeleisen PE., **Ben-Ari A.** Ultrasound Guided Thoracic Paravertebral Nerve Block, in *Ultrasound Guided Regional Anesthesia and Pain Medicine*, ed. Biegeleisen PE. (LW&W, 2009), 150-155.

CONFERENCE PRESENTATIONS:
- Starr J., **Ben-Ari A**. A risk calculator incorporating preoperative opioid use to predict total knee arthroplasty revision. *American Society of Anesthesiologists (ASA)*, 2016.
- Starr J., **Ben-Ari A**. Variation in Opioid Prescribing Patterns Before Total Knee Arthroplasty in Veterans Affairs Patients. *American Society of Anesthesiologists (ASA)*, 2016.
- ***Best paper in Information Technology in Healthcare Track***
  Ben-Ari A., Hammond KW. Text Mining the EMR for Modeling and Predicting Suicidal Behavior among US Veterans of the 1991 Persian Gulf War (Presented at *Hawaii International Conference on System Sciences (HICCS)*, Kauai HI, 2015).
- **Ben-Ari A.,** Rozet I. Chronic Preoperative opioids are associated with early knee revision in patients undergoing knee replacement. (Presented at the *American Society of Anesthesiologists (ASA)*, New Orleans LA, 2014).
- **Ben-Ari A.,** Hammond KW. Adverse Childhood Experiences and Adult Illness in Gulf War Veterans. (Presented at the *American Medical Informatics Association*, Washington DC, 2013).
- **Ben-Ari A.,** Chelly JE. Different Opioids Impact on PCA Pattern of Usage. (Presented at the *Association of University Anesthesiologists meeting*, Philadelphia PA, 2011).
- **Ben-Ari A.,** Marr L. Role of Continuous Peripheral Nerve Blocks (cPNB) in the Incidence of Post-Operative Nausea and Vomiting (PONV) in Major Joint Replacement. A Bayesian Approach to Retrospective Analysis. (Presented at the *European Society of Anesthesia*, Amsterdam, 2011).
- **Ben-Ari A.**, Marr L. Modeling Opioid Hydromorphone ED50 in Surgical Patients for Postoperative Pain, and Quantifying the Pharmacological Effect of a Nerve Block. (Presented at the *Italian Society of Anesthesiology*, Parma, Italy, October 2010).
- **Ben-Ari A.**, Chelly JE, Williams JP. Defining a Quantitative Clinical Phenotype Using Stochastic Modeling. (Presented at the *Association of University Anesthesiologists Meeting*, Denver CO, April 2010).
- Ghisi D., **Ben-Ari A.** Determining Placement Accuracy of Continuous Bilateral Paravertebral Catheters: A Comparison Between Ultrasound Guidance and Blind Technique. (Presented at the *American Society Regional Anesthasia Meeting*, Toronto, April 2010).
- **Ben-Ari A.,** Ruttum D., Biegeleisen PE. Ultrasound Guided Suprascapular Nerve Block in the Supraclavicular Fossa. (Presented at the *American Society Regional Anesthasia Meeting*, Toronto, April 2010).
- **Ben-Ari A.,** Shik V., Chelly JE. Two Unilateral Continuous Thoracic Paravertebral Blocks for the Pain Management of Extensive Rib Fractures. (Presented at the *American Society Regional Anesthasia Meeting*, Toronto, April 2010).
- Wilson S., **Ben-Ari A.** Placement of Peripheral Nerve Catheters for Lower Extremity Amputation in a Patient with a History of Surgical Revascularization: An Indication for Ultrasound. (Presented at the *American Society Regional Anesthasia Meeting*, Toronto, April 2010).
- **Ben-Ari A.,** Belfer I., Dai F., Chelly JE. Quantitative Sensory Testing (QST) and Clinical Variables in Total Knee Arthroplasty (TKA) in Patients with Continuous Peripheral Nerve Blocks (cPNB). (Presented at the *6th Congress of the European Federation of*

IASP Chapters (EFIC). Pain in Europe,VI, Lisbon, Portugal, September, 2009).

- **Ben-Ari A.,** Belfer I., Dai F., Chelly JE. Low Dose Continuous Femoral Blocks Does Not Impact Quadriceps Strength After Knee Arthroplasty. (Presented at the *American Society of Anesthesiologists Meeting*, New Orleans, October, 2009).
- **Ben-Ari A.,** Belfer I., Dai F., Chelly JE. Quantitative Measurement of Quadriceps Muscle Function Following Major Orthopedic Surgery. (Presented at the *Annual American Society of Regional Anesthesia Meeting,* Pheonix, April, 2009).
- **Ben-Ari A.,** Moreno GM., Bigeleisen PE., Chelly JE. Ultrasound Guided Continuous Approach to the Paravertebral Space. (Presented at the *International Anesthesia Research Society Meeting*, San Diego, March 2009).
- **Ben-Ari A.,** Uskova A., Rama J., Chelly JE. Ultrasound Guided Sciatic Nerve Block using the Parasacral Approach - Description of Technique. (Presented at the *American Society of Anesthesiogists Meeting*, Orlando, October, 2008).
- **Ben-Ari A.,** Biegelesen PE., Chelly JE. Antero-Medial Ultrasound Guided Approach to a Sciatic Nerve Block. (Presented at the *American Society of Anesthesiologists Meeting*, Orlando, October 2008).
- **Ben-Ari A.,** Frishman M., Rivkin R., Levdansky L., Gaberman Y., Gorodetsky R. Using Fibrin Micro Beads (FMB) for Isolation, Differentiation and In-Vivo Implantation of Mouse Mesenchymal Stem Cells in a Model of Ectopic Bone Formation and Repair of Critical Size Bone Defect. (Presented at the *Symposia in Tissue Engineering and Developmental Biology*, Utah, April, 2007).
- Rivkin R., **Ben-Ari A.**. Levdansky L., Gaberman E., Hotovely AS., Marx G., Gorodetsky R. Fibrin-Microbeads (FMB) for Isolation, Differentiation and Implantation of Bone-Marrow-Derived Mouse Mesenchymal Stem Cells. (Presented at the *International Workshop on Stem Cells and Calcified Tissues*, Tel-Aviv, Israel, 2006).
- **Ben-Ari A.,** Rivkin R., Levdansky L., Gaberman E., Solomon AH., Marx G., Gorodetsky R. Isolation Differentiation and In-Vivo Implantation of Osteogenic and Chondrogenic Cells Derived from Mice Mesenchmal Stem cells using Fibrin Micro Beads (FMB). (*20th International Congress of the Israeli Society of Anesthesia*, Tel-Aviv, Israel, 2005).

INVITED SPEAKER AND WORKSHOPS:

- From computer science to bedside, a clinician's perspective. Keynote Speaker Digital Health Track *Seattle Start-Up Week*, Seattle, Washington, November 2016.
- Data Mining; finding New Gold*, Think Tech Hawaii*, Honolulu Hawaii, May 2015.
- Suicidal behavior in OEF/OIF veterans, from text mining through machine learning to social network analysis. UC Davis Department of Informatics. Sacramento, California, May 2014.
- Ultrasound Guided Peripheral Nerve Blocks Workshop. *Jerusalem University – Anesthesia Department*. Jerusalem Israel, October 2013.
- Ultrasound Guided Peripheral Nerve Blocks Workshop. *American Society of Anesthesiologists Meeting*. New Orleans LA, October 2010.
- Lower Extremity Peripheral Nerve Blocks. *The 4th Regional Anesthesia & Hemostasis Symposium*. Nemacolin resort, Farmington PA, April 2008.
- Ultrasound Guided Peripheral Nerve Blocks Workshop. *The 5th Annual UPMC Pain Management Symposium*. Nemacolin resort, Farmington PA, November 2008.

PUBLISHED SOFTWARE:

- **Ben-Ari A.**. Abstraction of Generic Opioid Drug Names and Dosages from Full Text Prescription Records. https://github.com/alon-benari, GITHUB, 2014