



Frederick M. Dirbas, MD

Associate Professor of Surgery (General Surgery) and, by courtesy, of Radiation Oncology (Radiation Therapy)

Surgery - General Surgery

CLINICAL OFFICE (PRIMARY)

- **Stanford Women's Cancer Center**

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Palo Alto, CA 94305

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ACADEMIC CONTACT INFORMATION

- **Contact for Administrative items, Academic affairs, and Gifts**

Mark Le - Administrative Associate

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Tel (650) 723-5672

Bio

BIO

Dr. Dirbas is originally from Brooklyn, NY. He graduated from Stanford University with a B.S. with Departmental Honors in Chemistry in 1981.

While in college, Dr. Dirbas worked as a tech under Dr. Bruce Reitz in Dr. Norman Shumway's lab during initial studies of cyclosporin A as an immunosuppressive agent for preclinical studies of heart/lung transplantation. He then completed his M.D. training with A.O.A honors at Columbia University's College of Physician and Surgeons (now the Vagelos School of Medicine). Dr. Dirbas received the Whipple Award as the top surgery student in his medical school class. Internship and residency then followed at Stanford Hospital (now Stanford Health Care). During his professional development years Dr. Dirbas spent two years at the National Institutes of Health. He studied immunosuppression for cardiac transplantation with Dr. Thomas Waldmann by performing heterotopic heart transplants in cynomolgous monkeys then administering Anti-tac conjugated to Yttrium90. Dr. Dirbas returned to Stanford and as chief resident became more interested in surgical oncology. Accordingly, he then pursued a 2 year surgical oncology fellowship with Dr. John Niederhuber who later served as the head of the NCI. After completing this second fellowship, Dr. Dirbas worked as a staff surgeon at the Palo Alto VA Hospital and at Stanford Hospital for 4 years. At the Palo Alto VA he served as a surgical oncologist and ICU/critical care attending while at Stanford he served as a breast cancer surgeon and trauma surgeon (during this period Stanford achieved recognition as a Level I Trauma Center). In these early years at Stanford Dr. Dirbas routinely contributed tumor tissue to the pioneering work in the Brown/Botstein labs which led to the initial reports of molecular profiling of breast cancer. Dr. Dirbas became an assistant professor in 1999. In 2002 he initiated and served as PI for Stanford's Phase I/II studies in accelerated, partial breast irradiation, including intraoperative electron radiotherapy (IOERT) and 3D conformal radiotherapy making Stanford an early adopter of this technology. From 2010 to 2017 Dr. Dirbas served as the physician leader of Stanford's Breast Cancer Clinical Care Program: an anonymous poll of Medscape Members in 2017 ranked Stanford in a tie for #7 in the U.S. as the place that Medscape members would most likely recommend for breast cancer care. During this period Dr. Dirbas contributed significantly to the development of Stanford's Women's Cancer Center, Stanford's South Bay Cancer Center, and design elements of Stanford Cancer Hospital while maintaining an extremely busy clinical practice. Over 220 thousand chapters have been viewed or downloaded from a breast cancer textbook Dr. Dirbas co-edited in 2011. Dr. Dirbas became a board member of the School of Oncoplastic Surgery. He took a partial sabbatical from 2019 to 2021 to renew research efforts. He is currently a co-investigator on Dr. Aaron Newman's NIH R01 grant studying breast cancer stem cells in the triple negative lineage. Dr. Dirbas initiated Stanford's interdisciplinary research program investigating the merits of FLASH radiotherapy for breast cancer. Dr. Dirbas received a pilot grant from the Stanford

Cancer Institute, and more recently a 2-year grant from the California Breast Cancer Research Program for FLASH RT. His lab is focused on advancing FLASH RT research towards clinical use for breast cancer in humans while also working to understand the molecular mechanisms underlying the "FLASH effect". In October 2024, Dr. Dirbas was appointed the John and Ann Doerr Faculty Scholar in Breast Surgery. He is currently chair of the Breast Disease Site Working Group for the Society of Surgical Oncology. Dr. Dirbas continues to maintain an active breast surgery practice at the Stanford Cancer Center with the unique background training in cardiovascular surgery, immunotherapy, trauma surgery, ICU/critical care, and surgical oncology.

CLINICAL FOCUS

- Cancer > Breast Cancer
- Cancer > Breast Cancer > Accelerated Breast Radiation
- General Surgery
- MRI in Breast Cancer Staging
- Minimally Invasive Breast Surgery
- Targeted Axillary Node Dissection
- Accelerated, Partial Breast Irradiation (APBI)
- Intraoperative Radiotherapy for Breast Cancer
- Nipple Sparing Mastectomy
- Triple Negative Breast Cancer (see <https://med.stanford.edu/dirbas.html>)

ACADEMIC APPOINTMENTS

- Associate Professor - University Medical Line, Surgery - General Surgery
- Associate Professor - University Medical Line (By courtesy), Radiation Oncology - Radiation Therapy
- Member, Bio-X
- Member, Stanford Cancer Institute

ADMINISTRATIVE APPOINTMENTS

- Chair, Breast Disease Site Working Group, Society of Surgical Oncology, (2025-2027)
- John and Ann Doerr Faculty Scholar in Breast Surgery, School of Medicine, (2024- present)
- Co-Chair, Tissue Committee, Stanford Health Care, (2019- present)
- Physician Leader, Breast Cancer Clinical Care Program (CCP), Stanford Cancer Center, Stanford University School of Medicine, Stanford Hospital, (2010-2017)
- Co-Leader, Breast Cancer Clinical Research Group, Stanford Cancer Center, Stanford University School of Medicine, Stanford Hospital, (2011-2015)
- Director, Clinical Care Sub-team, Breast Disease Management Group, Stanford Cancer Center, (2006-2010)

HONORS AND AWARDS

- Best Doctors in America, Best Doctors, Inc (2025)
- Top Doctors, Castle Connolly (2025)
- Best Doctors in America, Best Doctors, Inc. (2023)
- Top Doctors, Castle Connolly (2023)
- Best Doctors in America, Best Doctors, Inc. (2022)
- Top Doctors, Castle Connolly (2022)
- Best Doctors in America, Best Doctors, Inc (2021)
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- Best Doctors in America, Best Doctors, Inc (2012)
- Best Doctors in America, Best Doctors, Inc. (2011)
- America's Top Surgeons, Consumers' Research Council of America (2010)
- Best Doctors in America, Best Doctors, Inc. (2010)
- America's Top Oncologists, Consumers' Research Council of America (2009)
- Best Doctors in America, Best Doctors, Inc. (2009)
- Star Caregiver Award, Silicon Valley Wellness Foundation (2008)
- Grant Recipient, Vadasz Foundation (2004)
- IORT for Breast Cancer (http://www.msnbc.msn.com/id/6503963/ns/nightly_news/), NBC (2004)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Chair, Scientific Advisory Board, Beyond Cancer, Ltd (2023 - 2025)
- Medical Advisory Board, Silicon Valley Innovations, NasoClenz (2021 - present)
- Board of Directors, School of Oncoplastic Surgery (2020 - present)

PROFESSIONAL EDUCATION

- Residency: Stanford University Dept of General Surgery (1992) CA
- Fellowship: Stanford University Dept of Surgery (1994) CA
- Fellowship: National Institute of Health (1989) MD
- Medical Education: Columbia University Office of the Registrar (1985) NY
- Board Certification: General Surgery, American Board of Surgery (1994)
- MD, Columbia University College of Physicians and Surgeons (1985)
- BS with Honors, Stanford University , Chemistry (1981)

COMMUNITY AND INTERNATIONAL WORK

- Susan G. Komen for the Cure Advisory Council 2011- 2014, San Francisco
- Expert Reviewer Program, Medical Board of California
- Susan G. Komen for the Cure San Francisco Affiliate 2004-2011, San Francisco
- Breast Cancer Connections 2011 - 2014, Palo Alto

PATENTS

- Frederick Dirbas. "United States Patent 6182047 Medical information log system", Software for Surgeons, Sep 30, 2001
- Frederick Dirbas. "United States Patent 6125350 Medical information log system", Software for Surgeons, Sep 26, 2000

LINKS

- Dirbas Clinical Research Group: <http://dirbas.stanford.edu/>
- Get a Second Opinion: <https://stanfordhealthcare.org/second-opinion/overview.html>
- VJ Oncology FLASH radiotherapy: <https://www.vjoncology.com/video/e3xyghuap9q-ultra-high-dose-rate-radiation-flash/>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Currently collaborating with Dr's Aaron Newman and Michael Clarke to study cancer stem cells associated with triple negative breast cancer. Advancing studies of FLASH radiotherapy in preclinical models for potential future use in humans. Investigating preclinical use of high dose gaseous nitric oxide in the treatment of solid tumors.

CLINICAL TRIALS

- LYMPHA Procedure for the Prevention of Lymphedema After Axillary Lymphadenectomy, Recruiting
- Accelerated Partial Breast Irradiation Following Lumpectomy for Breast Cancer, Not Recruiting
- Breast-Conserving Surgery and Radiation Therapy in Patients With Multiple Ipsilateral Breast Cancer, Not Recruiting
- Comparison of Axillary Lymph Node Dissection with Axillary Radiation for Patients with Node-Positive Breast Cancer Treated with Chemotherapy, Not Recruiting
- Early Surgery or Standard Palliative Therapy in Treating Patients With Stage IV Breast Cancer, Not Recruiting
- Letrozole in Treating Postmenopausal Women Who Have Received Hormone Therapy for Hormone Receptor-Positive Breast Cancer, Not Recruiting
- Surgery to Remove the Sentinel Lymph Node and Axillary Lymph Nodes After Chemotherapy in Treating Women With Stage II, Stage IIIA, or Stage IIIB Breast Cancer, Not Recruiting
- Trial of AVB-620 in Women With Primary, Non-Recurrent Breast Cancer Undergoing Surgery, Not Recruiting
- MRI in Women With Newly Diagnosed Breast Cancer Prior to Breast Conserving Surgery, Not Specified

PROJECTS

- Preclinical studies in FLASH radiotherapy for breast cancer - Stanford University

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Angela Corvino, Adel Mutahar, Banita Verma, Lucy Whitmore

Publications

PRESENTATIONS

- Essential of Radiation Therapy for the Oncoplastic Breast Surgeon - School of Oncoplastic Breast Surgery (January 26, 2020)