BIOGRAPHICAL SKETCH

NAME: **SATCHI-FAINARO, RONIT**

eRA COMMONS USERNAME (agency login): RONITSATCHI

POSITION TITLE: Full Professor; Head, Gray School of Medical Sciences; Director, Cancer Biology Research Center, Tel Aviv University (http://SatchiFainaroLab.com)

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
The Hebrew University, Faculty of Medicine, School of Pharmacy.	B.Pharm.	06/1995	Pharmacology
Internship in Industrial Pharmacy in Perio Products LTD, Jerusalem, Israel.	Internship in Industrial Pharmacy	03/1996	Pharmaceutical sciences
University of London, Faculty of Medicine, School of Pharmacy, Center for Polymer Therapeutics, London, UK: Thesis title: "PDEPT: Polymer Directed Enzyme Prodrug Therapy". PI: Prof. Ruth Duncan, PhD.	Ph.D. (Direct path)	11/1999	Polymer chemistry, biochemistry, and cancer nanomedicine
Tel Aviv University, Faculty of Life Sciences**,** Department of Cell Research and Immunology, Tel Aviv, Israel. PI: Prof. Sara Lavi, PhD.	Postdoctoral Research Fellow	06/2001	Cancer biology, molecular biology, biochemistry, and protein delivery
Harvard Medical School and Children's Hospital, Boston, USA. PI: Prof. Judah Folkman, MD.	Postdoctoral Research Fellow	09/2003	Cancer and vascular biology, nanomedicine

A. PERSONAL STATEMENT

I am a Professor of Pharmacology in the Department of Physiology and Pharmacology and the Head of the Gray School of Medical Sciences, Tel Aviv University (TAU). During my 18 years at TAU, I gathered a multidisciplinary group of 30 outstanding scientists and a variety of collaborators in the pursuit of answering big questions, such as: What triggers dormant cancers to switch to a fast-growing phenotype after long periods of time? What is the reason that some cancer cells choose one organ as opposed to another as a metastatic niche? Is there a specific subpopulation of tumor cells within a tumor that exhibits high tumorigenic potential? And last but not least, based on the answers to these questions, can highly selective drugs be designed to eradicate this subpopulation of cells, thereby eliminating the tumors and fulfilling the "Magic Bullet" dream envisioned by Paul Ehrlich more than 100 years ago? To this end, we identified molecular signatures that predict tumor dormancy associated with the inability to recruit the supporting stromal microenvironment, as well as the factors determining long-term survivorship in cancer patients. Based on these signatures, my lab was the first to rationally design multimodality targeted nanovaccines and polymer therapeutics that synergistically combine anti-stromal agents with chemotherapeutics and RNAi, offering the potential for improved efficacy and diminished toxicity in the treatment of cancer by targeting both the immune system and tumor tissue directly. My research focuses on tumor biology, cancer dormancy, tumor-host interactions, angiogenesis, molecular and non-invasive intravital imaging of animal models of cancer, 3D-bioprinted cancer models, and personalized nanomedicines for cancer theranostics (***thera***py and diagn***ostics***). Throughout, I have maintained an interest in understanding the biological rationale behind the design of nanomedicines suitable for clinical testing. My multidisciplinary research laboratory focuses on basic research to elucidate mechanisms underlying the switch from dormancy, leading to the discovery of new molecular targets that disrupt tumor-host interactions. My laboratory has a long-standing interest in polymer-based systems for the delivery of small molecules, oligonucleotides, and peptides for cancer treatment. Our approach is followed by the design of highly selective targeting molecules that integrate biology, chemistry, engineering, data science, materials science, and nanotechnology to selectively guide drugs and biological entities to pathological sites. I am leading multi-investigator, multi-institutional, and multidisciplinary projects.

Member of Editorial Boards of Scientific Journals

Journal of Controlled Release (Associate Editor), Advanced Drug Delivery Reviews (Associate Editor), Nanomedicine: Nano. Bio. Med., Advanced Polymer Science (Guest Editor), Molecular Pharmaceutics (Guest Editor), Pharmaceutics, Israel Journal of Chemistry (Guest Editor), Advanced Therapeutics.

B. POSITIONS AND HONORS

Positions and Employment

2025-present ***Head,*** *Gray School of Medical Sciences, Gray Faculty of Medical & Health Sciences, TAU*
2025-present ***Member,*** Int'l *Committee,* American Institute of Medical and Biological Engineers (AIMBE)
2025-present ***Full Professor of Biomedical Engineering****, Fleischman Faculty of Engineering, TAU*
2025-present ***Co-Founder, Chief Scientific Advisor, & Board Director, ImmuNovation Ltd.***
2025-present ***Founder and Chief Scientific Advisor, 4DCanPredict.***
2025-present **Member, Scientific Advisory Board, MultiMedica,** Clinical and Research Institute, Milan.
2024-present ***Member,*** Committee for Outstanding Physician-Scientists, Council for Higher Education
2023-present ***Co-Founder, Selectin Therapeutics Inc.***
2023-present **Member, Scientific Advisory Board, CAS,** a division of the American Chemical Society-ACS
2022-present ***Member, Medonna,*** *BioMedTech Women Leadership for Health.*
2021-present ***Member,*** **Research Committee, Rambam Health Care Campus**, Haifa, Israel
2021-2025 ***Member,*** Committee for Outstanding Resident Physician-Scientists, Israel Medical Association
2021-2023 ***Vice President,*** Federation of the Israel Societies of Experimental Biology **FISEB** Conference
2021-2025 ***Member, The Fulbright Fellowships Committee***
2021-present ***Member, Scientific Advisory Board,*** Immunyx
2021-present ***Visiting Full Professor, University of Lisbon***
2021-present ***Member, Scientific Advisory Board,*** **iMed Research Institute for Medicines**, U. Lisbon.
2020-present ***Director, Cancer Biology Research Center (CBRC),*** *TAU and 18-affiliated hospitals.* ***Raised $20M*** ***https://cbrc.tau.ac.il/***
2020-present ***Member, 8400 - The Health Network Program; and at 2025: 8400 US-IL Task Force HELIX***
2019-present ***Chair, The Rothschild Fellowships Committee***
2019-present ***Member, Board*** **of Governors & Senate,** TAU.
2019-present ***Member, Science-Oriented Youth Committee,*** TAU.
2018-present ***Director, Board of Directors, Teva Pharmaceutical Industries Ltd***., Compliance, Science and Technology, and Corporate Governance and Nominating Committees.
2018-present ***Member, Scientific Advisory Board,*** **Hospital Universitari (VHIR)**, Barcelona, Spain.
2018-present ***Member, Scientific Advisory Board*****,** ***Steering Committee,*** **Israel Cancer Association**.
2018-present ***Member, Scientific Advisory Board*****, VC VLX Ventures**.
2017-present **Member, Advisory Board, MIT Enterprise Forum of Israel**.
2017-present **Kurt and Herman Lion Chair in Nanosciences and Nanotechnologies.**
2017-2022 **Member, Scientific Advisory Board,** Colton & Miles Nadal Institutes for Entrepreneurship
2016-present ***Director,*** **Kahn 3D-BioPrinting Initiative. Raised $15M**
2015-present ***Full Professor of Pharmacology***, **dual affiliation:** Dept. Physiology and Pharmacology, Faculty of Medicine, TAU, and Sagol School of Neuroscience, TAU.
2015-2022 ***Member, Preclinical Dean Committee,*** Faculty of Medicine, TAU.
2014-present ***Member, Scientific Advisory Board*****,** Blavatnik Center for Drug Discovery.
2014-2018 ***Chair,*** Department of Physiology and Pharmacology, Faculty of Medicine, TAU.
2010-2016 ***Chair,*** Tel Aviv University Institutional Animal Care and Use Committee (IACUC).
2011-2014 ***Associate Professor***, Dept. Physiology and Pharmacology, Faculty of Medicine, TAU.
2006-2010 ***Assistant Professor,*** Dept. Physiology and Pharmacology, Faculty of Medicine, TAU.
2006-present ***Member,*** **Jan Koum Center for Nanoscience and Nanotechnology**.
2006-present ***Principal Investigator; Head*****, Cancer Research and Nanomedicine Laboratory**.
2005- 2010 ***Visiting Associate Professor***, Harvard Medical School and Children's Hospital Boston, USA.
2002-2005 ***Instructor in Surgery***, Harvard Medical School, Boston, USA.
2002-2005 ***Research Associate*****,** Children's Hospital, Boston, USA.

Other Experience and Professional Memberships

2021, 2025 ***Graduate****,* Harvard Business School, 8400 Health Network Leadership Program.
2020 ***Graduate****,* Good Clinical Practice (GCP) course***.*** Obtained a **GCP certificate.**
2019-2020 ***Graduate***, Directors' and Officers' Course, Coller Faculty of Management, Tel Aviv University.
2010- present ***Member****,* The Israel Society for Cancer Research (ISCR).
2015- present ***Member****,* American Chemical Society (ACS) and Israel Chemical Society (ICS).
1997- present ***Active member****,* The American Association for Cancer Research (AACR #75741).
1996- present ***Member****,* The Controlled Release Society (CRS). **PRESIDENT** of the Israeli CRS 2010-2016.
1996- present ***Member****,* The European Association of Cancer Research (EACR #1173).

Selected Awards and Honors

1996-British Council Chevening Award; **1997**-Nagai Foundation Tokyo Graduate Student Award; **1997**-Overseas Research Student Award; **1998**-Wingate Scholarship; **1999**-CRS-3M Graduate Student Outstanding Research Award; **1999-** Vectura Ltd. Postdoctoral Grant; **2000-**A.M. Cook Prize for outstanding Ph.D. Thesis; **2000-** Becton Dickinson Award; **2001**-UICC Award; **2001-**Fulbright scholarship; **2001-** Rothschild scholarship; **2003**-CRS-Ethypharm Outstanding Pharmaceutical Paper Award; **2005-** EACR Young Cancer Researcher highly commended Award; **2006-** Alon Fellowship for outstanding young investigators; **2007**- Marguerite Stolz/Gutwirth Award for Outstanding Junior Faculty; **2008-**Inclusion in the 40 under 40 list of The Marker journal; **2009-**Inclusion in the 50 Most promising women list of the Calcalist journal; **2010-**JULUDAN Prize for the Advancement of Technology in Medicine; **2010-** Elected for **PRESIDENT** of the Israel Chapter of the Controlled Release Society; **2011,2013, 2014**-Inclusion in the 50 Most influential women list of the Globes journal; **2012, 2014, 2018, 2021-**Excellence in Teaching Award, TAU; **2012-**Person of the year in the field of Medicine, Forbes; **2013**- Teva Pharmaceutical Industries Founders Award for the Discovery of new molecular mechanisms and targets that would lead to new therapeutic approaches; **2014**- ERC CoG**; 2016-**Women at the front, Saloona Prize List in the category of Science and Medicine. **2016-** Represented Israel together with 6 Scientist-Architect teams at the 2016 Biennale in Venice, Italy, on the Inspiration of Biology and Medicine on Architecture; **2017-2021-** Research prizes for exceptional publications, TAU; **2018-** Israel Cancer Research Fund Professorship; **2019-** ERC AdG**; 2019**- CRS Translational Science Award. **2019**-Woman of the Year, Globes, Israel**. 2019-** 20 most promising Israelis, Yediot Aharonot. **2020-** Youdim Family Prize for Excellence in Cancer Research. **2020**-Humboldt Foundation Bessel Research Prize. **2020**-Kadar Family Award for Outstanding Research. **2020**-Michael Bruno Memorial Award. **2021-**Salisbury Award for Entrepreneurial Translational Research, National Foundation for Cancer Research. **2021-**3D Printing Industry Award for the Medical Application of the Year. **2021-** AIM-HI accelerator fund Women's Venture Competition People's Choice Award. **2022-** CRS College of Fellows in recognition of an exceptional individual in the field of controlled release who has made outstanding and sustained contributions to the field of delivery science and technology over a minimum of 10 years. **2022-** Forbes List of Power Women. **2022-** Algemeiner Journal's top 100 people positively influencing Jewish life. **2024-** Elected Fellow of the American Institute of Medical and Biological Engineers (AIMBE). **2024-** Ynet List of Leading Women to Follow. **2025**- Tenne Prize for Nanoscale Sciences, Israel Chemical Society (ICS). **2025**- NCK Prize for Medicinal Chemistry, ICS. **2025**- Samyang Award, CRS. **2025-** ICRS Award for Outstanding Achievements in Drug Delivery.

C. CONTRIBUTION TO SCIENCE

1. Development of the first selective nanomedicines bearing angiogenesis inhibitors and the first multi-modality targeted polymer therapeutics combining anti-angiogenic agents with chemotherapeutics. During my postdoctoral fellowship in the lab of the late Judah Folkman, I combined emerging technologies to address an unsolved problem: the selective targeting of anti-angiogenic drugs to tumor blood vessels. I designed a water-soluble conjugate of HPMA copolymer, cathepsin-cleavable linker, and TNP-470, a potent agent but highly toxic in clinical trials. This conjugate accumulated selectively in tumor vessels due to the enhanced permeability and retention (EPR) effect. It enhanced and prolonged the anticancer activity of TNP-470 while preventing its crossing of the blood-brain barrier and reducing its accumulation in normal organs, thereby avoiding drug-related toxicities. This new approach, targeting angiogenesis inhibitors specifically to the tumor vasculature, provided a new strategy for the rational design of cancer therapies. This work was published in *Nature Medicine*. This is the first anti-angiogenic nanomedicine. Prior to this work, polymer therapeutics were primarily targeted at cancer cells, whereas the stromal compartment was largely neglected. Several patents were filed on this anti-angiogenic nanomedicine, and it was licensed to a pharmaceutical company. A second project investigated during my postdoctoral fellowship focused on hyperpermeability in angiogenic blood vessels compared to that in normal vessels. I found that several anti-angiogenic agents decrease vascular hyperpermeability of tumor blood vessels and reduce delayed-type hypersensitivity and pulmonary edema induced by IL-2. I found that the mechanism was via inhibition of VEGF-induced phosphorylation of VEGFR-2, calcium influx, and RhoA activation in endothelial cells. These findings were published in *Cancer Cell*. This was the first time that the inhibition of VEGF-induced vessel hyperpermeability was identified as the mechanism of action of many angiogenesis inhibitors. It suggests that this activity is likely to contribute to their anti-angiogenic effect, thus they can be used in the treatment of cancer, inflammation, and other angiogenesis-dependent diseases. The understanding that targeting a single cellular compartment is insufficient to elicit a significant antitumor response motivated my independent lab to develop combination nanomedicines that target tumor and host compartments synergistically. This new treatment modality has demonstrated great promise in multiple tumor types, with enhanced antitumor activity and reduced toxicity.

a. **Satchi-Fainaro**, *et al.*, Folkman, Targeting angiogenesis with a conjugate of HPMA copolymer and TNP-470, ***Nature Medicine***, 10(3), 255 (2004).

b. **Satchi-Fainaro**, *et al.*, Folkman, Inhibition of vessel permeability by TNP-470 and its polymer conjugate, caplostatin, ***Cancer Cell***, 7(3), 251 (2005). **(Cover).**
c. Miller, *et al.,* **Satchi-Fainaro,** Targeting bone metastases with bi-specific anticancer and anti-angiogenic polymer-alendronate-taxane conjugate, ***Angewandte Chemie,*** 48(16) 2949 (2009).
d. Markovsky[¥], Baabur-Cohen[¥], **Satchi-Fainaro,** Anticancer polymeric nanomedicine bearing synergistic drug combination is superior to a mixture of individually-conjugated drugs**, *J Controlled Release***, 187:145 (2014).
e. Koshrovski-Michael, *et al.,* **Satchi-Fainaro,** Two-in-One nanoparticle platform induces a strong therapeutic effect of targeted therapies in P-selectin-expressing cancers, ***Science Advances,*** 10(50):eadr4762 (2024).

2. Development of a library of polymeric nanocarriers for the selective delivery of oligonucleotides to tumor and to immune cells. We developed novel approaches using polyglycerol (PG) dendrimers (with Rainer Haag) and amphiphilic polyglutamate amine (PGA) for parenteral delivery of siRNA, miRNA, mRNA to tumors, and PLGA/PLA NP to dendritic cells, eliminating the need to know the tumor location. Using these unique platforms as RNA nanocarriers, we suppressed tumor growth and extended time to progression and survival in mice bearing a variety of tumor types. This unprecedented inhibition of tumor growth by targeting downstream effectors and inhibiting cell proliferation and migration suggests a key role for these anticancer miRNAs in gliomas, including those resistant to temozolomide. Efforts were also focused on using these amphiphilic polyglutamate amine nanocarriers for RNAi delivery for ovarian carcinoma, breast cancer, and osteosarcoma. These projects were part of a Magneton collaboration with Rosetta Genomics (PG) and the MAGNET Rimonim Consortium, which included QBI and Rosetta Genomics (PGA). Recently, we converted our PLGA/PLA DC-targeted nanovaccine platform to deliver siPD-L1 for the treatment of cancer and infectious diseases, such as COVID-19.

a. Shatsberg, *et al.,* **Satchi-Fainaro,** Functionalized nanogels carrying an anticancer microRNA for glioblastoma therapy, ***J Controlled Release***, 239:159 (2016).
b. Polyak[¥], Krivitsky[¥], Scomparin[¥], *et al.,* **Satchi-Fainaro,** Systemic delivery of siRNA by aminated poly(α)glutamate for the treatment of solid tumors, ***J Controlled Release***, 257:132 (2017).
c. Acúrcio RC[¥], Kleiner R[¥], Vaskovich D[¥], *et al.*, **Satchi-Fainaro R,** Intranasal multiepitope PD-L1-siRNA-based nanovaccine: The next-gen COVID-19 immunotherapy, ***Advanced Science,*** *e2404159* (2024). (**Cover)**

3. Identification of the molecular and cellular changes in tumor-associated host-stromal interactions that govern tumor dormancy, progression, and metastasis. Although dormant tumors are highly prevalent in the human population, the underlying mechanisms remain largely unknown. We set out to shed light on the mechanisms underlying tumor dormancy, a fundamental phenomenon in cancer biology. A deeper molecular understanding of tumor dormancy, along with the identification of dormancy markers and therapeutic targets, is likely to alter our perception of tumor progression and, consequently, the way we diagnose and treat the disease. Our findings have led to the discovery of tumor dormancy-associated targets and the development of dormancy-promoting therapies. This project is the basis for an ERC consolidator PolyDorm grant and an ISF grant for which I received the Teva Pharmaceutical Industries Founders Award for “the Discovery of new molecular mechanisms and targets that would lead to new therapeutic approaches”. We employed this approach to investigate the molecular mechanisms governing long-term versus short-term survivorship in patients with PDAC and GBM. Our work, which focused on identifying and validating P-selectin as a novel immune checkpoint and therapeutic target for cancer, led to the co-founding of Selectin Therapeutics, Inc. and the initiation of a clinical trial at Sheba Medical Center **(NCT05909618**).

a. Tiram, *et al.,* **Satchi-Fainaro,** Identification of dormancy-associated microRNAs for the design of osteosarcoma-targeted dendritic polyglycerol nanopolyplexes, ***ACS Nano,*** 10(2): 2028 (2016).
b. Ferber[¥], Tiram[¥], *et al.,* **Satchi-Fainaro**, Co-targeting the tumor endothelium and P-selectin-expressing glioblastoma cells leads to a remarkable therapeutic outcome. ***eLife,*** 6 pii: e25281 (2017).
c. Laue[¥], Pozzi[¥], *et al.*, **Satchi-Fainaro***, Ben-David U*, p53 inactivation drives breast cancer brain metastasis via cell-autonomous and astrocyte-dependent increase of fatty acid metabolism, ***Nature Genetics,*** 58(1):116-131 (2026). [¥]**Equal contribution *Corresponding authors**.
d. Gibori, *et al.*, **Satchi-Fainaro,** Amphiphilic nanocarrier-induced modulation of PLK1 and miR-34a leads to improved therapeutic response in pancreatic cancer**, *Nature Communications,*** 9(1):16 (2018).
e. Yeini, *et al.*, **Satchi-Fainaro,** P-selectin inhibition alters microglia immunophenotype and blocks glioblastoma progression, ***Nature Communications,*** 12(1):1912 (2021). **<u>*30-patient clinical trial ongoing.</u>**

4. Development of diagnostic and theranostic nanomaterials for cancer. We developed a novel kind of Turn-ON probes with a near-infrared fluorescence mode of action. These probes were designed to fluorescently report the real-time presence of a specific analyte or enzyme at a pathological site using intravital, non-invasive imaging. We conjugated these probes to a drug-bearing polymer, and while they were Turned-OFF in the bloodstream following intravenous injection, they Turned-ON fluorescently when arriving at the tumor and

releasing the drugs, reporting on the (i) location of the tumor (for diagnosis and for image-guided surgery) and (ii) drug release, hence their definition as theranostic nanomedicines. A similar approach was taken to design chemiluminescence Turn-ON probes with Doron Shabat. This technology was licensed to Biosynth.

a. Redy-Keisar, *et al.,* **Satchi-Fainaro*,** Shabat*, Synthesis and use of QCy7-derived modular probes for detection and imaging of biologically relevant analytes, ***Nature Protocols***, 9(1), 27 (2014). ***Corr. Authors.**
b. Blau, *et al.,* **Satchi-Fainaro,** Image-guided surgery using near-infrared Turn-ON fluorescent nanoprobes for precise detection of tumor margins, ***Theranostics*****,** 24;8(13):3437 (2018). **(Cover).**
c. Hananya, *et al.,* **Satchi-Fainaro***, Shabat*, A highly-efficient chemiluminescence probe for detection of singlet oxygen in living cells. ***Angewandte Chemie,*** 138(40):13438 (2017).
d. Epshtein¥, Blau¥, Pisarevsky¥, *et al.,* **Satchi-Fainaro,** Polyglutamate-based nanoconjugates for image-guided surgery and post-operative melanoma metastases prevention, ***Theranostics****,* 12:6339 (2022).
e. Blau, *et al.*, **Satchi-Fainaro**, Chemiluminescent probes in cancer biology, ***Nature Reviews Bioengineering***, 1, 648–664 (2023).

5. Rational design of immunotherapies tested on engineered human 3D cancer models incorporating a complete TME. We focus on a multidisciplinary project within the frontier of cancer immunotherapy where nanotechnology, immunology, engineering, and 3D-bioprinting for cancer modeling provide a rationale for novel anticancer treatments. We design precision nanomedicines that stimulate the immune system to attack the tumor cells and TME. We designed PLGA/PLA-based nanovaccines targeting DCs to activate T cells against different cancer types, which we validated on our 3D-bioprinted cancer models. Our work focused on the identification of cancer (neo)antigens, and the creation of relevant nanovaccines led to the foundation of ImmuNovation, Inc. with Helena Florindo. In collaboration with Doron Shabat, we devised another immunotherapy approach, tagging heteroaryl chemotherapeutic drug molecules with a ketone functional group and using them to form ADCs. This project is the basis for an ERC Advanced Grant, an ERC PoC, and an ongoing collaboration with Merck.

a. Conniot¥, Scomparin¥, *et al.,* **Satchi-Fainaro***, Florindo*, Immunization with mannosylated nanovaccines and inhibition of the immune-suppressing microenvironment sensitizes melanoma to immune checkpoint modulators, ***Nature Nanotechnology****, 14(9):891-901* (2019). ***Corresponding authors**.
b. Liubomirski, *et al.*, **Satchi-Fainaro**, Potent antitumor activity of anti-HER2 antibody-topoisomerase I inhibitor conjugate based on self-immolative dendritic dimeric-linker, ***J Controlled Release***, 367, 148-157 (2024).
c. Florindo, *et al.*, **Satchi-Fainaro**, Immune approaches against COVID-19, ***Nature Nanotechnology****, 15(8):630* (2020).
d. Neufeld, *et al.*, **Satchi-Fainaro**, Microengineered perfusable 3D-bioprinted glioblastoma model for *in vivo* mimicry of tumor microenvironment, 7(34):eabi9119, ***Science Advances*** (2021). ***80-patient clinical trial**
e. Neufeld, *et al.,* **Satchi-Fainaro**, 3D-Bioprinted cancer models: from basic biology to drug development, ***Nature Reviews Cancer***, 22(12):679-692 (2022).

D. CURRENT RESEARCH SUPPORT

2024-2029 Israel Science Foundation (ISF) #3706/24 (RSF, PI, 10%): *Identifying and targeting mechanisms that govern the progression of gastrointestinal cancers using precision nanomedicines*. *$500K*
2016-2026 Kahn Foundation (RSF, PI, 10%): *3D-bioprinted cancer modeling initiative*. $15M
2017-2026 Merck Global Healthcare (RSF, PI, 5%; Co-PI: Shabat): *Novel antibody-drug conjugates. $1.6M*
2018-2026 Israel Cancer Research Foundation (ICRF) Professorship #PROF-18-602 (RSF, PI, 5%): *P-selectin–targeted nanomedicines and immunotherapy for brain metastases prevention. $350K*
2019-2026 Teva Pharmaceutical Industries (RSF, PI, 3%; Co-PI: Madi): *Designing a non-blocking anti-PD-1 fused to an attenuated IL-2 as a novel immunotherapy evaluated in 3D tumor models. $1.6M*
2022-2026 La Caixa MultiNano@BBM #HR22-00702 (RSF Co-PI, 5%; Co-PI: Florindo): *Multifunctional nano-immunotherapy against breast brain metastases. $500K*
2019-2025 ERC Advanced Grant #835227 3DBrainStrom (RSF, PI, 50%): *Brain metastases: Deciphering tumor-stroma interactions in 3D for nanomedicines rational design. $2.5M*
2023-2025 ERC PoC #101113390 (RSF, PI, 2%); **ImmuNovation:** *RNA/peptide-based nanovaccines. $175K*
2024-2027 La Caixa PINT #HR24-00968 (RSF, Co-PI, 5%; Co-PIs: Vicent, Florindo): *Precision ImmuneNanoTherapy targeting tumor-immune-stroma interactions against pancreatic cancer. $396K*
2024-2028 Binational Science Foundation (BSF) #2023077 (RSF, Co-PI 5%; Co-PIs: Heller, Raju): *Enhancing drug delivery past the BBB using P-selectin targeted nanotherapies for pediatric brain tumors. $350K*
2025-2028 EIC Transition #101214384TIMNano(RSF,PI-50%): Restoring immunity control of GI cancers.*$2.5M*

E. SCIENTIFIC PUBLICATIONS https://www.ncbi.nlm.nih.gov/pubmed/?term=satchi-fainaro

Additional information: Published over 170 manuscripts, edited 2 books, 13 book chapters, over 13,000 citations, over 600 abstracts, keynote, and plenary presentations, h-index 67, 95 patent applications/granted, co-founded 3 spin-offs based on the lab's research, and initiated 2 clinical trials at Sheba Medical Center.

ORIGINAL ARTICLES

1. **Satchi R**, Connors TA, Duncan R, PDEPT: Polymer-directed enzyme prodrug therapy. 1. HPMA copolymer-cathepsin B and PK1 as a model combination, ***British Journal of Cancer,*** 85(7), 1070-1076 (2001).
2. **Satchi-Fainaro R**, Wrasidlo W, Lode HN, Shabat D, Synthesis and characterization of a catalytic antibody–HPMA copolymer conjugate as a tool for tumor selective prodrug activation**, *Bioorganic & Medicinal Chemistry,*** 10 (9), 3023-3029 (2002).
3. **Satchi-Fainaro R**, Hailu H, Davies JW, Summerford C, Duncan R, PDEPT: Polymer directed enzyme prodrug therapy. 2. HPMA copolymer-β-lactamase and HPMA copolymer-cephalosporin-doxorubicin as a model combination, ***Bioconjugate Chemistry***, 14(4), 797-804 (2003).
4. Périno S, Contino-Pépin C, **Satchi-Fainaro R**, Butterfield C, Pucci B, Inhibition of angiogenesis by THAM-derived cotelomers endowed with thalidomide moieties, ***Bioorganic and Medicinal Chemistry Letters***, 14(2), 421-425 (2004).
5. **Satchi-Fainaro R**, Puder M, Davies J, Tran H, Sampson DA, Greene AK, Corfas G, Folkman J, Targeting angiogenesis with a conjugate of HPMA copolymer and TNP-470, ***Nature Medicine***, 10(3), 255-261 (2004). (**Commentaries in:** Hutchinson E. Angiogenesis: A helping hand, *Nature Reviews Cancer* 4: 248-249, 2004; Ahmad K. Modified angiogenesis inhibitor for selective targeting of tumors; *The Lancet Oncology* 5: 265, 2004; Polymer-angiogenesis inhibitor combination may be less toxic, *JNCI* March 3, 2004; and Acosta F, Parsa AT, More effective targeting of tumor angiogenesis, *Neurosurgery*, 54 (5): N8-N8 May 2004; *Harvard University gazette*, February 26, 2004, Cancer drug given new life, Its toxic side effects eliminated, Cromie WJ; Focus, McCaffrey P, March 19, 2004 Angiogenesis Inhibitors Revived, Revealed in Progress Against Cancer).
6. **Satchi-Fainaro R**, Mamluk R, Wang L, Short SM, Nagy JA, Feng D, Dvorak AM, Dvorak HF, Puder M, Mukhopadhyay D, Folkman J, Inhibition of vessel permeability by TNP-470 and its polymer conjugate, caplostatin, ***Cancer Cell***, 7(3), 251-261 (2005). (Commentaries in: Viinikka T, Leak-patching protein shuts down tumor growth, swelling, *Focus*, March 25, 2005). **(Cover)**
7. Tjin Tham Sjin RM, **Satchi-Fainaro R**, Birsner AE, Ramanujam VM, Folkman J, Javaherian K, A 27 amino acid synthetic peptide corresponding to the NH_2-terminal zinc binding domain of endostatin is responsible for its antitumor activity, ***Cancer Research***, 65(9), 3656-3663 (2005).
8. Javid PJ, Greene AK, Garza J, Gura K, Alwayn IAP, Voss S, Nose V, **Satchi-Fainaro R**, Zauche B, Mulkern RV, Jaksic T, Bistrian B, Folkman J, Puder M, The route of lipid administration affects parenteral nutrition–induced hepatic steatosis in a mouse model**, *Journal of Pediatric Surgery***, 40(9), 1446-1453 (2005).
9. Becker CM, Wright RD, **Satchi-Fainaro R**, Funakoshi T, Folkman J, Kung AL, D'Amato RJ, A novel non-invasive model of endometriosis for monitoring the efficacy of antiangiogenic therapy, ***American Journal of Pathology*****,** 168(6) 2074-2084 (2006).
10. Nahari D, **Satchi-Fainaro R**, Chen M, Mitchell I, Task LB, Liu Z, Kihneman J, Carroll AB, Terada LS, Nwariaku F, Tumor Cytotoxicity and Endothelial Rac Inhibition Induced by TNP-470 in Anaplastic Thyroid Cancer, ***Molecular Cancer Therapeutics,*** 6(4), 1329-1337 (2007).
11. Sagi A, Segal E, **Satchi-Fainaro R***, Shabat D*, Remarkable drug-release enhancement with an elimination-based AB_3 self-immolative dendritic amplifier, ***Bioorganic and Medicinal Chemistry***, 15(11), 3720–3727 (2007). ***Corresponding authors.**
12. Chesler L, Goldenberg DD, Seales IT, **Satchi-Fainaro R**, Grimmer M, Collins R, Struett C, Nguyen KN, Kim G, Tihan T, Bao Y, Brekken RA, Bergers G, Folkman J, Weiss WA**,** Malignant progression and blockade of angiogenesis in a murine transgenic model of neuroblastoma**, *Cancer Research***, 67(19), 9435-9442 (2007).
13. Ryppa C, Mann-Steinberg H, Fichtner I, Weber H, **Satchi-Fainaro R**, Biniossek M, Kratz F, *In vitro* and *in vivo* evaluation of doxorubicin conjugates with the divalent peptide E-[c(RGDfK)$_2$] that target integrin $\alpha_v\beta_3$, ***Bioconjugate Chemistry,*** 19(7), 1414-1422. (2008).

14. Ryppa C, Mann-Steinberg H, Biniossek M, **Satchi-Fainaro R***, Kratz F*, *In vitro* and *in vivo* evaluation of a paclitaxel conjugate with the divalent peptide E-[c(RGDfK)$_2$] that targets integrin $\alpha_v\beta_3$, ***International Journal of Pharmaceutics,*** 368(1-2), 89-97 (2009). ***Corresponding authors.**
15. Stern L, Perry R, Ofek P, Many A, Shabat D, **Satchi-Fainaro R**, A novel antitumor prodrug platform designed to be cleaved by the endopeptidase legumain, ***Bioconjugate Chemistry***, *20(3)*, 500–510 (2009).
16. Miller K, Erez R, Segal E, Shabat D, **Satchi-Fainaro R**, Targeting bone metastases with bi-specific anticancer and anti-angiogenic polymer-alendronate-taxane conjugate, ***Angewandte Chemie-****International Edition English,* 48(16), 2949 –2954 (2009).
17. Segal E, Pan HZ, Ofek P, Udagawa T, Kopeckova P, Kopecek J, **Satchi-Fainaro R**, Targeting angiogenesis-dependent calcified neoplasms using combined polymer therapeutics, ***PLoS ONE*****,** 4(4)**:**e5233 (2009).
18. Erez R, Segal E, Miller K, **Satchi-Fainaro R**, Shabat D, Enhanced cytotoxicity of a polymer-drug conjugate with triple payload of paclitaxel, ***Bioorganic and Medicinal Chemistry****,* 17(13), 4327–4335 (2009).
19. Weinstain R*, Segal E*, **Satchi-Fainaro R**, Shabat D, Real-time monitoring of drug release, ***Chemical Communications (Camb)*** 46(4), 553-555 (2010).
20. Ofek P, Fischer W, Calderón M, Haag R, **Satchi-Fainaro R**, In vivo delivery of small interfering RNA to tumors and their vasculature by novel dendritic nanocarriers, ***FASEB Journal***, 24(9), 3122-3134 (2010).
21. Marom H, Miller K, Bechor-Bar Y, Tsarfaty G, **Satchi-Fainaro R***, Gozin M*, Toward development of targeted nonsteroidal antiandrogen-1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetic acid-gadolinium complex for prostate cancer diagnostics, ***Journal of Medicinal Chemistry***, 53(17), 6316-6325 (2010). ***Corresponding authors.**
22. Polyak D, Ryppa C, Ofek P, Licha K, Many A, Kratz F, **Satchi-Fainaro R**, Development of PEGylated doxorubicin-E-[c(RGDfK)$_2$] conjugate for integrin-targeted cancer therapy, ***Polymers for Advanced Technology*****,** 22, 103–113 (2011).
23. Eldar-Boock A, Miller K, Sanchis J, Lupu R, Vicent MJ, **Satchi-Fainaro R**, Integrin-assisted drug delivery of nano-scaled polymer therapeutics bearing paclitaxel, ***Biomaterials***, 32(15), 3862-3874 (2011).
24. Miller K, Eldar-Boock A, Polyak D, Segal E, Benayoun L, Shaked Y, **Satchi-Fainaro R**, Antiangiogenic antitumor activity of HPMA copolymer-paclitaxel-alendronate conjugate on breast cancer bone metastasis mouse model, ***Molecular Pharmaceutics***, 8(4),1052-1062 (2011).
25. Clementi C, Miller K, Mero A, **Satchi-Fainaro R**, Pasut G, Dendritic poly(ethylene glycol) bearing paclitaxel and alendronate for targeting bone neoplasms, ***Molecular Pharmaceutics***, 8(4):1063-1072 (2011).
26. Segal E, Pan H, Benayoun L, Kopečková P, Shaked Y, Kopeček J, **Satchi-Fainaro R**, Enhanced anti-tumor activity and safety profile of targeted nano-scaled HPMA copolymer-alendronate-TNP-470 conjugate in the treatment of bone malignances**,** ***Biomaterials***, 32(19):4450-4463 (2011).
27. Scomparin A, Salmaso S, Bersani S, **Satchi-Fainaro R**, Caliceti P, Novel folated and non-folated pullulan bioconjugates for anticancer drug delivery, **European *Journal of Pharmaceutical Sciences***, 42(5), 547-558 (2011).
28. Karton-Lifshin N, Segal E, Omer L, Portnoy M, **Satchi-Fainaro R***, Shabat D*, A unique paradigm for a Turn-ON near-infrared Cyanine-based probe: Non-invasive intravital optical imaging of Hydrogen Peroxide, ***Journal of the American Chemical Society (JACS)*****,** 133(28), 10960-10965 (2011). ***Corresponding authors**.
29. Fante C, Eldar-Boock A, **Satchi-Fainaro R**, Osborn H, Greco F, Synthesis and biological evaluation of a polyglutamic acid-dopamine conjugate: a new anti-angiogenic agent, ***Journal of Medicinal Chemistry***, 54(14), 5255-5259 (2011).
30. **Satchi-Fainaro R**, Ferber S, Segal E, Ma L, Dixit N, Ijaz A, Hlatky L, Abdollahi A, Almog A, Prospective identification of glioblastoma cells generating dormant tumors, ***PLoS One,*** 7(9): e44395. (2012).
31. Herzog IM, Green KD, Berkov-Zrihen Y, Feldman M, Vidavski RR, Eldar-Boock A, **Satchi-Fainaro R,** Eldar A, Garneau-Tsodikova S and Fridman M, 6"-Thioether tobramycin analogues: Towards selective targeting of bacterial membranes, ***Angewandte Chemie***, 51(23), 5652-5656 (2012).
32. Benayoun L, Gingis-Velitski S, Voloshin T, Segal E, Segev R, Munster M, Bril R, **Satchi-Fainaro R**, Scherer SJ, Shaked Y, Tumor-initiating cells of various tumor types exhibit differential angiogenic properties and react differently to antiangiogenic drugs, ***Stem Cells -Cancer Stem Cells***, 30(9),1831-41 (2012).

33. Benayoun L, Schaffer M, Brill R, Gingis-Velitski S, Segal E, Nevelsky A, **Satchi-Fainaro R**, Shaked Y, Porfimer-sodium (Photofrin-II) in combination with ionizing radiation inhibits tumor initiating cell proliferation and improves glioblastoma treatment efficacy, ***Cancer Biology & Therapy*****,** 14(1), 64-74 (2013). (**Cover**).
34. Miller K, Clementi C, Polyak D, Eldar-Boock A, Benayoun L, Barshack I, Shaked Y, Pasut G, **Satchi-Fainaro R**, Poly(ethylene glycol)-paclitaxel-alendronate self-assembled micelles for the targeted treatment of breast cancer bone metastases, ***Biomaterials*****,** 34(15): 3795–3806 (2013).
35. Chuderland D, Ben-Ami I, Kaplan-Kraicer R, Grossman H, Komsky A, **Satchi-Fainaro R**, Eldar-Boock A, Ron-El R, Shalgi R, Hormonal regulation of pigment epithelium derived factor (PEDF) in granulosa cells, ***Molecular Human Reproduction***, 19(2), 72-81 (2013).
36. Herzog IM, Feldman M, Eldar-Boock A, **Satchi-Fainaro R**, Fridman M, Design of membrane targeting tobramycin-based cationic amphiphiles with reduced hemolytic activity, ***MedChemComm***, 4, 120-124 (2013).
37. Ferber S, Baabur-Cohen H, Blau R, Epshtein Y, **Satchi-Fainaro R**, Polymeric nanotheranostics for real-time non-invasive optical imaging of breast cancer progression and drug release, ***Cancer Letters***, 352(1):81-89 (2014).
38. Redy-Keisar O, Kisin-Finfer E, Ferber S, **Satchi-Fainaro R*,** Shabat D*, Synthesis and use of QCy7-derived modular probes for detection and imaging of biologically relevant analytes, ***Nature Protocols***, 9(1), 27-36 (2014). ***Corresponding authors**.
39. Kisin-Finfer E, Ferber S, Blau R, **Satchi-Fainaro R**, Shabat D, Synthesis and evaluation of new NIR-fluorescent probes for cathepsin B: ICT *versus* FRET as a Turn-ON mode-of-action, ***Bioorganic and Medicinal Chemistry Letters,*** 24(11):2453- 2458 (2014).
40. Markovsky E, Baabur-Cohen H, **Satchi-Fainaro R,** Anticancer polymeric nanomedicine bearing synergistic drug combination is superior to a mixture of individually-conjugated drugs**,** ***Journal of Controlled Release***, 187: 145–157 (2014). **(Cover). (Editorial highlight** by Kinam Park, True combination therapy using synergistic drug combination, *Journal of Controlled Release* 187, 198 (2014)**).**
41. Dvashi Z, Shalom HJ, Shoat M, Ben-Meir D, Ferber S, **Satchi-Fainaro R**, Ashery-Padan R, Rosner M, Solomon AS, Lavi S, Protein phosphatase Magnesium dependent 1A governs the wound healing-inflammation-angiogenesis cross talk on injury**,** ***American Journal of Pathology***, 184(11):2936-50 (2014)**.**
42. Ferber S, Tiram G, **Satchi-Fainaro R**, Monitoring functionality and morphology of vasculature recruited by factors secreted by fast-growing tumor-generating cells, ***The Journal of Visualized Experiments (JoVE),*** Nov 23;(93):e51525 (2014).
43. Redy-Keisar O, Ferber S, **Satchi-Fainaro R***, Shabat D*, NIR fluorogenic dye as a modular platform for prodrug assembly: Real-time *in vivo* monitoring of drug release, ***ChemMedChem*****,** 10(6): 999-1007 (2015). ***Corresponding authors**.
44. Scomparin A, Salmaso S, Eldar-Boock A, Ben-Shushan D, Ferber S, Tiram G, Shmeeda H, Landa-Rouben N, Leor J, Caliceti P, Gabizon A, **Satchi-Fainaro R**, A comparative study of folate receptor-targeted doxorubicin delivery systems: dosing regimens and therapeutic index, ***Journal of Controlled Release***, 208 106-120 (2015).
45. Bonzi G, Salmaso S, Scomparin A, Eldar-Boock A, **Satchi-Fainaro R**, Caliceti P. Novel pullulan bioconjugate for selective breast cancer bone metastases treatment, ***Bioconjugate Chemistry,*** 26(3):489-501 (2015).
46. Tiram G, Segal E, Krivitsky A, Shreberk-Hassidim R, Ferber S, Ofek P, Udagawa T, Edry L, Shomron N, Roniger M, Kerem B, Shaked Y, Aviel-Ronen S, Barshack I, Calderón M, Haag R, **Satchi-Fainaro R.** Identification of dormancy-associated microRNAs for the design of osteosarcoma-targeted dendritic polyglycerol nanopolyplexes, ***ACS Nano****, 10(2): 2028-2045* (2016).
47. Fisusi FA, Siew A, Chooi KW, Okubanjo O, Garrett N, Lalatsa K, Serrano D, Summers I, Moger J, Stapleton P, **Satchi-Fainaro R**, Schätzlein AG, Uchegbu IF, Lomustine nanoparticles enable both bone marrow sparing and high brain drug levels – A strategy for brain cancer treatments, ***Pharmaceutical Research,*** 33 (5), 1289-1303 (2016).
48. Schwartz H, Blacher E, Amer M, Livneh N, Abramovitz L, Klein A, Ben-Shushan D, Soffer S, Blazquez R, Barrantes-Freer A, Müller M, Müller-Decker K, Stein R, Tsarfaty G, **Satchi-Fainaro R**, Umansky V, Pukrop T, Erez N, Incipient melanoma brain metastases instigate astrogliosis and neuroinflammation, ***Cancer Research*****,** 76(15):4359-17 (2016).

49. Ofek P, Calderón M, Mehrabadi FS, Krivitsky A, Ferber S, Tiram G, Yerushalmi N, Kredo-Russo S, Grossman R, Ram Z, Haag R, **Satchi-Fainaro R**, Restoring the oncosuppressor activity of microRNA-34a in glioblastoma using a polyglycerol-based polyplex, ***Nanomedicine,*** 12(7):2201-2214 (2016).
50. Golan M, Feinshtein V, Polyak D, Scomparin A, **Satchi-Fainaro R**, David A, Inhibition of gene expression and cancer cell migration by CD44v3/6-targeted polyion complexes, ***Bioconjugate Chemistry,*** 27 (4), 947-960 (2016).
51. Shatsberg Z, Zhang X, Ofek P, Malhotra S, Krivitsky A, Scomparin A, Tiram G, Calderón M, Haag R, **Satchi-Fainaro R**, Functionalized nanogels carrying an anticancer microRNA for glioblastoma therapy, ***Journal of Controlled Release,*** 239:159-68 (2016).
52. Gnaim S, Scomparin A, Li X, Baran PS, Rader C, **Satchi-Fainaro R**, Shabat D, Tagging the Untaggable: A difluoroalkyl-sulfinate ketone-based reagent for direct C-H functionalization of bioactive heteroarenes, ***Bioconjugate Chemistry***, 27(9):1965-71 (2016).
53. Krivitsky A, Polyak D, Scomparin A, Eliyahu S, Ori A, Avkin-Nachum S, Krivitsky V, **Satchi-Fainaro R**, Structure-function correlation of aminated poly(α)glutamate as siRNA nanocarriers, ***Biomacromolecules,*** 17(9):2787-2800 (2016).
54. Hananya N, Eldar-Boock A, Bauer CR, **Satchi-Fainaro R**, Shabat D, Remarkable enhancement of chemiluminescent signal by dioxetane-fluorophore conjugates: Turn-ON chemiluminescence probes with color modulation for sensing and imaging**,** ***Journal of the American Chemical Society (JACS)***,138(40):13438-13446 (2016).
55. Alishekevitz D, Gingis-Velitski S, Kaidar-Person O, Gutter-Kapon L, Scherer SD, Raviv Z, Merquiol E, Ben-Nun Y, Miller V, Rachman-Tzemah C, Timaner M, Mumblat Y, Ilan N, Loven D, Hershkovitz D, **Satchi-Fainaro R**, Blum G, P Sleeman J, Vlodavsky I, Shaked Y. Macrophage-induced lymphangiogenesis and metastasis following paclitaxel chemotherapy is regulated by VEGFR3, ***Cell Reports,*** 17(5):1344-1356 (2016).
56. Polyak D, Krivitsky A, Scomparin A, Eliyahu S, Kalinski H, Avkin-Nachum S, **Satchi-Fainaro R,** Systemic delivery of siRNA by aminated poly(α)glutamate for the treatment of solid tumors, ***Journal of Controlled Release***, 257:132-143 (2017).
57. Baabur-Cohen H, Vossen L, Krüger HR, Eldar-boock A, Yeini E, Landa-Rouben N, Tiram G, Wedepohl S, Markovsky E, Leor J, Calderón M, **Satchi-Fainaro R,** *In vivo* comparative study of distinct polymeric architectures bearing a combination of paclitaxel and doxorubicin at a synergistic ratio*,* ***Journal of Controlled Release***, 257:118-131 (2017).
58. Markovsky E, Eldar-Boock A, Ben-Shushan D, Baabur-Cohen H, Yeini E, Pisarevsky E, Many A, Aviel-Ronen S, Barshack I, **Satchi-Fainaro R,** Targeting NCAM-expressing neuroblastoma with polymeric precision nanomedicine, ***Journal of Controlled Release***, 249:162-172 (2017).
59. Zupančič E, Curato C, Paisana M, Rodrigues C, Porat Z, Viana AS, Afonso CAM, Pinto J, Gaspar R, Moreira JN, **Satchi-Fainaro R,** Jung S, Florindo HF, Rational design of nanoparticles towards targeting antigen-presenting cells and improved T cell priming. ***Journal of Controlled Release***, 258:182-195 (2017).
60. Ferguson EL, Scomparin A, Hailu H, **Satchi-Fainaro R.** HPMA copolymer-phospholipase C and dextrin-phospholipase A2 as model triggers for Polymer Enzyme Liposome Therapy (PELT), ***Journal of Drug Targeting,*** 25(9-10):818-828 (2017).
61. Eldar-Boock A, Blau R, Ryppa C, Baabur-Cohen H, Many A, Vicent MJ, Kratz F, Sanchis J, **Satchi-Fainaro R.** Integrin-targeted nano-sized polymeric systems for paclitaxel conjugation: A comparative study, ***Journal of Drug Targeting,*** 25(9-10):829-844 (2017).
62. Hananya N, Green O, Blau R, **Satchi-Fainaro R***. Shabat D*, A highly-efficient chemiluminescence probe for detection of singlet oxygen in living cells, ***Angewandte Chemie*** *Int Ed Engl.* 138(40):13438-13446 (2017) ***Corresponding authors.**
63. Green O, Gnaim, S, Blau R, Eldar-Boock A, **Satchi-Fainaro R,** Shabat D, Near-infrared dioxetane luminophores with direct chemiluminescence emission mode, ***Journal of the American Chemical Society (JACS),*** 139(37):13243-13248 (2017).
64. Markovsky E[¥], Vax E[¥], Ben-Shushan D*, Eldar-Boock A, Shukrun R, Yeini E, Barshack I, Caspi R, Harari-Steinberg O, Pode-Shakked N, Dekel B, **Satchi-Fainaro R**, Wilms' tumor NCAM-expressing cancer stem cells as potential therapeutic target for polymeric nanomedicine*,* ***Molecular Cancer Therapeutics***, 16(11), 2462-72 (2017). **[¥]Equal Contribution.**
65. Ferber S[¥], Tiram G[¥], Sousa-Herves A, Eldar-Boock A, Krivitsky A, Scomparin A, Yeini E, Ofek P, Ben-Shushan D, Vossen LI, Licha K, Grossman R, Ram Z, Henkin J, Ruppin E, Auslander N, Haag R, Calderón

M, **Satchi-Fainaro R**. Co-targeting the tumor endothelium and P-selectin-expressing glioblastoma cells leads to a remarkable therapeutic outcome, ***eLife**,* 6 pii: e25281(2017). **¥Equal Contribution.**

66. Krivitsky A**¥,** Polyak D**¥**, Scomparin A**¥**, Eliyahu S, Ofek P, Tiram G, Kalinski H, Avkin-Nachum S, Feiner Gracia N, Albertazzi L, **Satchi-Fainaro R**. Amphiphilic poly(α)glutamate polymeric micelles for systemic administration of siRNA to tumors. ***Nanomedicine**,* 14(2):303-315, (2018). **¥Equal Contribution.**
67. Gibori H, Eliyahu S, Krivitsky A, Ben-Shushan D, Epshtein Y, Tiram G, Blau R, Ofek P, Sang Lee J, Ruppin E, Landsman L, Barshack I, Golan T, Merquiol E, Blum G, **Satchi-Fainaro R,** Amphiphilic nanocarrier-induced modulation of PLK1 and miR-34a leads to improved therapeutic response in pancreatic cancer**,** ***Nature Communications**,* 9(1):16 (2018).
68. Zupančič E, Curato C, Kim JS, Yeini E, Porat Z, Viana AS, Globerson-Levin A, Waks T, Eshhar Z, Moreira JN, **Satchi-Fainaro R,** Eisenbach L, Jung S, Florindo HF, Nanoparticulate vaccine inhibits tumor growth via improved T cell recruitment into melanoma and huHER2 breast cancer***, Nanomedicine***, 14(3):835-847 (2018).
69. Eilon-Shaffer T, Roth-Konforti M, Eldar-Boock A, **Satchi-Fainaro R**, Shabat D, ortho-Chlorination of phenoxy 1,2-dioxetane yields superior chemiluminescent probes for in vitro and in vivo imaging, ***Organic & Biomolecular Chemistry**, 16(10):1708-1712* (2018). ***Corresponding authors**.
70. Vossen LI**¥**, Markovsky E**¥**, Eldar-Boock A, Tschiche HR, Wedepohl S, Pisarevsky E, **Satchi-Fainaro R*,** Calderon M***,** PEGylated dendritic polyglycerol conjugate targeting NCAM-expressing neuroblastoma: Limitations and challenges, ***Nanomedicine***, 14(4):1169-1179 (2018). **¥Equal Contribution. *Corresponding authors**.
71. Blau R, Epshtein Y, Tiram G, Pisarevsky E, Israeli S, Yeini E, Krivitsky A, Eldar-Boock A, Ben-Shushan D, Green O, Ben-Nun Y, Merquiol E, Schwartz H, Blum G, Erez N, Grossman R, Ram Z, Shabat D, **Satchi-Fainaro R,** Image-guided surgery using near-infrared Turn-ON fluorescent nanoprobes for precise detection of tumor margins, ***Theranostics*****,** 24;8(13):3437-3460 (2018). **(Cover)**
72. Krivitsky A, Krivitsky V, Polyak D, Scomparin A, Eliyahu S, Gibori H, Yeini E, Pisarevsky E, Avkin-Nachum S, **Satchi-Fainaro R,** Molecular weight-dependent activity of aminated poly(α)glutamates as siRNA nanocarriers, ***Polymers***, 10(5) 548-570 (2018).
73. Tiram G**¥**, Ferber S**¥**, Ofek P, Krivitsky A, Yeini E, Amsalem O, Almog N, Henkin J, Ben-Shushan D, Eldar-Boock A, Lee JS, Ruppin E, Yavin E, Grossman R, Ram Z, Calderón M, Haag R, **Satchi-Fainaro R**, Reverting the molecular fingerprint of tumor dormancy as a therapeutic strategy for glioblastoma, ***FASEB J*****,** 32 (11), 5835-5850 (2018). **¥Equal contribution.**
74. Gnaim S, Scomparin A, Das S, **Satchi-Fainaro R,** Shabat D, Direct Real-Time Monitoring of Prodrug Activation by Chemiluminescence. ***Angewandte Chemie** Int Ed Engl.,* 16;57(29):9033-9037 (2018).
75. Sainz V, Moura L, Peres C, Matos AI, Viana AS, Wagner AM, Ramirez JEV, Barata T, Gaspar M, Brocchini S, Zloh M, Peppas NA, **Satchi-Fainaro R**, Florindo HF, α-Galactosylceramide and peptide-based nano-vaccine synergistically induced a strong tumor suppressive effect in melanoma, ***Acta Biomaterialia**,* 76:193-207 (2018).
76. Zafir-Lavie I, Sherbo S, Goltsman H, Badinter F, Yeini E, Ofek P, Miari R, Tal O, Liran A, Shatil T, Krispel S, Shapir N, Neil GA, Benhar I, Panet A, **Satchi-Fainaro R**, Successful intracranial delivery of trastuzumab by gene-therapy for treatment of HER2-positive breast cancer brain metastases, ***Journal of Controlled Release**, 291:80-89* (2018).
77. Gnaim S, Scomparin A, Eldar-Boock A, Bauer CR, **Satchi-Fainaro R,** Shabat D, Light emission enhancement by supramolecular complexation of chemiluminescence probes designed for bioimaging, ***Chemical Science***, 10, 2945 - 2955 (2019).
78. Malfanti A, Mastrotto F, Han Y, Král P, Balasso A, Scomparin A, Pozzi S, **Satchi-Fainaro R***, Salmaso S*, Caliceti P*, A novel oligo-guanidyl-PEG carrier forming rod-shaped polyplexes, ***Molecular Pharmaceutics***, 16(4):1678-1693 (2019).
79. Conniot J**¥**, Scomparin A**¥,** Peres C, Yeini E, Pozzi S, Matos AI, Kleiner R, Moura LIF, Zupančič E, Viana AS, Doron H, Gois PMP, Erez N, Jung S, **Satchi-Fainaro R***, Florindo HF*, Immunization with mannosylated nanovaccines and inhibition of the immune-suppressing microenvironment sensitizes melanoma to immune checkpoint modulators, ***Nature Nanotechnology***, 14(9):891-901 (2019). **¥Equal contribution. *Corresponding authors**.
80. Borberg E, Zverzhinetsky M, Krivitsky A, Kosloff A, Heifler O, Degabli G, Peretz Soroka H, **Satchi-Fainaro R**, Burstein L, Reuveni S, Diamant H, Krivitsky V, Patolsky F, Light-Controlled Selective Collection-and-Release of Biomolecules by an On-chip Nanostructured Device, ***Nano Lett*ers**, 19(9):5868-5878 (2019).
81. Florindo HF, Madi A, **Satchi-Fainaro R**, Challenges in implementation of MIRIBEL criteria on NanoBioMed manuscripts, ***Nature Nanotechnology***, 14(7):627-628 (2019).

82. Hananya N, Press O, Das A, Scomparin A, **Satchi-Fainaro R**, Sagi I, Shabat D, Persistent chemiluminescent glow of phenoxy-dioxetane luminophore enables unique CRET-based detection of proteases, ***Chemistry–A European Journal***, 25(64):14679-14687 (2019).
83. Doron H, Amer M, Ershaid N, Blazquez R, Shani O, Lahav TG, Cohen N, Adler O, Hakim Z, Pozzi S, Scomparin A, Cohen J, Yassin M, Monteran L, Grossman R, Tsarfaty G, Luxenburg C, **Satchi-Fainaro R**, Pukrop T, Erez N. Inflammatory Activation of Astrocytes Facilitates Melanoma Brain Tropism via the CXCL10-CXCR3 Signaling Axis. ***Cell Reports***, 28(7):1785-1798.e6 (2019).
84. Malfanti A, Scomparin A, Pozzi S, Gibori H, Krivitsky A, Blau R, **Satchi-Fainaro R***, Mastrotto F*, Caliceti P*, Salmaso S. Oligo-guanidyl targeted bioconjugates forming rod-shaped polyplexes as a new nanoplatform for oligonucleotide delivery, ***Journal of Controlled Release***, 310:58-73 (2019). ***Corresponding authors.***
85. Zinger A, Koren L, Adir O, Poley M, Alyan M, Yaari Z, Noor N, Krinsky N, Simon A, Gibori H, Krayem M, Mumblat Y, Kasten S, Ofir S, Fridman E, Milman N, Lübtow MM, Liba L, Shklover J, Shainsky-Roitman J, Binenbaum Y, Hershkovitz D, Gil Z, Dvir T, Luxenhofer R, **Satchi-Fainaro R**, Schroeder A. Collagenase nanoparticles enhance the penetration of drugs into pancreatic tumors**,** ***ACS Nano***, 13(10):11008-11021 (2019).
86. Shaashua L, Israeli B, Arad G, Rosenne E, Fichman D, **Satchi-Fainaro R**, Geiger T, Sloan EK, Ben-Eliyahu S, Spontaneous regression and latency of metastases following primary tumor excision: A critical role for primary tumor secretome, ***bioRxiv*** (2019).
87. Pisarevsky E[¥], Blau R[¥], Epshtein Y[¥], Ben-Shushan D, Eldar-Boock A, Tiram G, Koshrovski-Michael S, Scomparin A, Pozzi S, Krivitsky A, Shenbach-Koltin G, Yeini E, Fridrich L, White R, **Satchi-Fainaro R**, Rational design of polyglutamic acid delivering an optimized combination of drugs targeting mutated BRAF and MEK in melanoma, ***Advanced Therapeutics***, 3(8), 2000028 (2020). (**Cover**). **[¥]Equal contribution.** ***Editors' Choice.**
88. Monteran L, Ershaid N, Sabah I, Fahoum I, Zait Y, Shani O, Cohen N, Eldar-Boock A, **Satchi-Fainaro R**, Erez N, Bone metastasis is associated with acquisition of mesenchymal phenotype and immune suppression in a model of spontaneous breast cancer metastasis, ***Scientific Reports***, 10(1):13838 (2020).
89. Yanovich-Arad G, Ofek P, Yeini E, Danilevsky A, Shomron N, Grossman R, **Satchi-Fainaro R,** Geiger T, Proteogenomics of glioblastoma associates molecular patterns with survival, ***medRxiv*** (2020).
90. Shaashua L, Eckerling A, Israeli B, Yanovich G, Rosenne E, Fichman-Horn S, Ben Zvi I, Sorski L, Haldar R, **Satchi-Fainaro R**, Geiger T, Sloan EK, Ben-Eliyahu S, Spontaneous regression of micro-metastases following primary tumor excision: a critical role for primary tumor secretome, ***BMC Biology****, 18(1):163* (2020).
91. Yanovich-Arad G, Ofek P, Yeini E, Mardamshina M, Danilevsky A, Shomron N, Grossman R, **Satchi-Fainaro R,** Geiger T, Proteogenomics of glioblastoma associates molecular patterns with survival, ***Cell Reports****,* 34(9):108787 (2021).
92. Yeini E, Ofek P, Pozzi S, Albeck N, Ben-Shushan D, Tiram G, Golan S, Kleiner R, Sheinin R, Israeli Dangoor S, Reich-Zeliger S, Grossman R, Ram Z, Brem H, Hyde TM, Magod P, Friedmann-Morvinski D, Madi A and **Satchi-Fainaro** R, P-selectin axis plays a key role in microglia immunophenotype and glioblastoma progression, ***Nature Communications****,* 12(1):1912 (2021).
93. Neufeld L, Yeini E, Reisman N, Shtilerman Y, Ben-Shushan D, Pozzi S, Madi A, Tiram G, Eldar-Boock A, Ferber S, Grossman R, Ram Z, **Satchi-Fainaro R,** Micro-engineered perfusable 3D-bioprinted glioblastoma model for in vivo mimicry of tumor microenvironment, ***Science Advances****, 7(34), eabi9119 (2021).*
94. Shelef O[¥], Sedgwick AC[¥], Pozzi S[¥], Green O, **Satchi-Fainaro R***, Shabat D*, Sessler JL*, Turn on chemiluminescence-based probes for monitoring tyrosinase activity in conjunction with biological thiols, ***Chemical Communications***, *57(86):11386-11389* (2021). **[¥]Equal contribution.** ***Corresponding authors.***
95. Krivitsky A, Pozzi S, Yeini E, Israeli Dangoor S, Zur T, Golan S, Krivitsky V, Albeck N, Pisarevsky E, Ofek P, Madi A, and **Satchi-Fainaro R**, Sulfonated Amphiphilic poly(α)glutamate amine – a potential siRNA nanocarrier for the treatment of both chemo-sensitive and chemo-resistant glioblastoma tumors, ***Pharmaceutics*****,** 13(12):2199 (2021).
96. Acúrcio RC, Pozzi S, Carreira B, Pojo M, Gómez-Cebrián N, Casimiro S, Fernandes A, Barateiro A, Farricha V, Brito J, Leandro AP, Salvador JAR, Graça L, Puchades-Carrasco L, Costa L, **Satchi-Fainaro R***, Guedes RC*, Florindo HF*, Therapeutic targeting of PD-1/PD-L1 blockade by novel small-molecule

inhibitors recruits cytotoxic T cells into solid tumor microenvironment, ***Journal for ImmunoTherapy of Cancer,*** 10(7):e004695 (2022). ****Corresponding authors.***

97. Sekhar AR, Chitose Y, Janoš J, Israeli Dangoor S, Ramundo A, **Satchi-Fainaro R,** Slavíček P, Klán P, Weinstain R, Porphyrin as a versatile visible-light-activatable organic/metal hybrid photoremovable protecting group**, *Nature Communications*,**13(1):3614 (2022).
98. Pozzi S, Scomparin A, Ben-Shushan D, Yeini E, Ofek P, Nahmad AD, Sofer S, Ionescu A, Ruggiero A, Barzel A, Brem H, Hyde TM, Barshack I, Sinha S, Ruppin E, Weiss T, Madi A, Perlson E, Slutsky I, Florindo HF, **Satchi-Fainaro R,** MCP-1/CCR2 axis inhibition sensitizes the brain microenvironment against melanoma brain metastasis progression, ***Journal of Clinical Investigation Insight***, 7(17):e154804 (2022).
99. Epshtein Y[¥], Blau R[¥], Pisarevsky E[¥], Koshrovski-Michael S, Ben-Shushan D, Pozzi S, Shenbach-Koltin G, Fridrich L, Buzhor M, Krivitsky A, Dey P, **Satchi-Fainaro R**, Polyglutamate-based nanoconjugates for image-guided surgery and post-operative melanoma metastases prevention, ***Theranostics,*** 12(14): 6339-6362 (2022). **[¥] Equal contribution.**
100. Ofek P, Yeini E, Arad G, Danilevsky A, Pozzi S, Burgos Luna C, Israeli Dangoor S, Grossman R, Ram Z, Shomron N, Brem H, Hyde TM, Geiger T and **Satchi-Fainaro R**, Deoxyhypusine hydroxylase: A novel therapeutic target differentially expressed in short-term versus long-term survivors of glioblastoma*,* ***International Journal of Cancer,*** 153(3):654-668 (2023).
101. Pires D, Mandal M, Matos AI, Peres C, Catalão MJ, Azevedo-Pereira JM, **Satchi-Fainaro R**, Florindo HF, Anes E, Development of Chitosan Particles Loaded with siRNA for Cystatin C to control intracellular drug-resistant *mycobacterium tuberculosis*, ***Antibiotics***, 12(4):729 (2023).
102. Matos AI, Peres C, Carreira B, Moura LIF, Acúrcio RC, Vogel T, Wegener E, Ribeiro F, Afonso MB, Santos FMF, Martínez-Barriocanal A, Arango D, Viana AS, Gois PMP, Silva LC, Rodrigues CMP, Graça L, Jordan R, **Satchi-Fainaro R*,** Florindo HF*, Polyoxazoline-Based Nanovaccine Synergizes with Tumor-Associated Macrophage Targeting and Anti-PD-1 Immunotherapy against Solid Tumors, ***Advanced Science***, 10(25):e2300299 (2023). ****Corresponding authors.***
103. Laue K[‡], Pozzi S[‡], Cohen-Sharir Y, Winkler T, Eliezer Y, Israeli Dangoor S, Leikin-Frenkel A, Lange K, Zerbib J, Ricci AA, Sacconi A, Berthelet J, Schaffer A, Shi W, Liao Y, Barshack I, Medyouf H, Merino D, Blandino G, Bertero L, **Satchi-Fainaro R***, Ben-David U*,* Inactivation of p53 drives breast cancer brain metastasis by altering fatty acid metabolism*.* ***bioRxiv*** (2023)*. https://doi.org/10.1101/2023.12.20.572490* ***[‡]Equal contribution. *Corresponding authors.***
104. Liubomirski Y, Tiram G, Scomparin A, Gnaim S, Das S, Gholap S, Ge L, Yeini E, Shelef O, Zauberman A, Berger N, Kalimi D, Toister-Achituv M, Schröter C, Dickgiesser S, Tonillo J, Shan M, Deutsch C, Sweeney-Lasch S, Shabat D, **Satchi-Fainaro R**, Potent antitumor activity of anti-HER2 antibody-topoisomerase I inhibitor conjugate based on self-immolative dendritic dimeric-linker, ***Journal of Controlled Release,*** 367, 148-157 (2024).
105. Sheinin R, Salomon K, Yeini E, Dulberg S, Kaminitz A, **Satchi-Fainaro R,** Sharan R, Madi A, InterFLOW: Maximum flow framework for the identification of factors mediating the signaling convergence of multiple receptors, ***npj Systems Biology and Applications,*** 10(1):66 (2024).
106. Peres C, Matos AI, Moura LIF, Carreira B, Verdial M, Conniot J, Afonso MB, Acúrcio R, Basto AP, Mensurado S, Silva-Santos B, Santos SCR, Viana AS, Silva LS, Rodrigues CMP, Préat V, Graça L, Madi A, **Satchi-Fainaro R*,** Florindo HF*. Multifunctional nanovaccine sensitizes triple-negative breast cancer to immune checkpoint therapy, ***Advanced Functional Materials***, 2401749 (2024)*.* ****Corresponding authors.***
107. Monteran L, Ershaid N, Scharff Y, Zoabi Y, Sanalla T, Yunfeng D, Pavlovsky A, Zait Y, Langer M, Caller T, Eldar-Boock A, Avivi C, Sonnenblick A, **Satchi-Fainaro R**, Barshack I, Shomron N, Zhang XHF, Erez N, Combining TIGIT blockade with MDSC inhibition hinders breast cancer bone metastasis by activating anti-tumor immunity, ***Cancer Discovery,*** 14(7):1252-1275 (2024).
108. Shelef O, Krinsky A, Jospe-Kaufman M, Babjaková Z, Fridman M, **Satchi-Fainaro R,** Spitz U, Shabat D, Biocompatible flash chemiluminescent assay enabled by sterically hindered spiro-strained-oxetanyl-1,2-dioxetane. **ChemRxiv**. 2024; doi:10.26434/chemrxiv-2024-gc8vm.
109. Acúrcio RC[¥], Kleiner R[¥], Vaskovich-Koubi D[¥], Carreira B, Liubomirski Y, Palma C, Yeheskel A, Yeini E, Viana AS, Ferreira V, Araújo C, Mor M, Freund NT, Bacharach E, Gonçalves J, Toister-Achituv M, Fabregue M, Matthieu S, Guerry C, Zarubica A, Aviel-Ronen S, Florindo HF, **Satchi-Fainaro R,** Intranasal Multiepitope PD-L1-siRNA-Based Nanovaccine: The Next-Gen COVID-19 Immunotherapy, ***Advanced Science,*** 11(40):e2404159 (2024). **[¥] Equal contribution. (Cover)**

110. Koshrovski-Michael S, Rodriguez Ajamil D, Dey P, Kleiner R, Tevet S, Epshtein Y, Green Buzhor M, Khoury R, Pozzi S, Shenbach-Koltin G, Yeini E, Woythe L, Blau R, Scomparin A, Barshack I, Florindo HF, Lazar S, Albertazzi L, Amir RJ, **Satchi-Fainaro R**, Two-in-One Nanoparticle Platform Induces a Strong Therapeutic Effect of Targeted Therapies in P-selectin-expressing Cancers, ***Science Advances,*** 10(50):eadr4762 (2024).
111. Madan E, Palma A, Vudatha V, Kumar A, Bhoopathi P, Wilhelm J, Bernas T, Martin P, Bilolikar G, Gogna A, Kim H, Peixoto M, Dreier I, Araujo T, Dorayappan K, Oh D, Mamidi N, Yekelchyk M, Accardi D, Su Z, Xiao G, Olsen A, Neufeld L, Maji S, Pelham C, Yeini E, Garre E, Gustafsson A, Rolfsnes H, Marques R, Lu A, Nagane M, Chaudhary S, Gupta K, Achary K, Akhtar J, Beliao S, Liao L, Bhoopathi SMK, Mannangatti P, Das S, Correia I, da Silva CL, Fialho A, Poellmann M, Javius-Jone K, Hawkridge A, Pal S, Shree K, Khurana S, Zhang D, Menon U, Sanyal A, Poklepovic A, Rijal A, Lyons C, Grossman S, Turner D, Robinson G, Pillappa R, Koblinski J, Gupta G, Selvendiran K, Singh G, Singh S, Tsung A, Prakash K, Rayamajhi S, Bacolod M, Richards H, Sayeed S, Klein K, **Satchi-Fainaro R**, Connolly D, Thorsen F, Bjerkvig R, Nephew K, Idowu M, Kühnel M, Moskaluk C, Hong S, Redmond W, Landberg G, Lopez-Beltran A, Chelmow D, Fisher P, Church G, Drapkin R, Godwin A, Luo Y, Tzankov A, Mertz K, Ackermann M, Jonigk D, Sidransky D, Trevino J, Saavedra A, Winn R, Won K, Moreno E, Lin L, Titelman A, Bianchi M, Jessmon P, Farid E, Pradhan A, Tumor cells gain competitive advantage by actively reducing the cellular fitness of microenvironment cells ***Nature Biotechnology***, 43(11):1833-1847 (2025).
112. Shelef O, Krinsky A, Jospe-Kaufman M, Babjaková Z, Fridman M, **Satchi-Fainaro R**, Spitz U, Shabat D, Biocompatible flash chemiluminescent assay enabled by sterically hindered spiro-strained-oxetanyl-1,2-dioxetane, ***Chemistry,*** 30(71):e202402981 (2025).
113. Israeli Dangoor S, Khoury R, Salomon K, Pozzi S, Shahar S, Miari A, Leichtmann-Bardoogo Y, Bar-Hai N, Frommer N, Yeini E, Winkler T, Balint Lahat N, Kamer I, Hadad O, Laue K, Brem H, Hyde TM, Bar J, Barshack I, Ben-David U, Ishay-Ronen D, Maoz BM, **Satchi-Fainaro R**, CCL2 blockade combined with PD-1/P-selectin immunomodulators impedes breast cancer brain metastasis, ***Brain,*** 148(5):1740-1756 (2025).
114. Shelef O, Gutkin S, Nassir M, Krinsky A, **Satchi-Fainaro R**, Baran PS, Shabat D, Thymidine Phosphodiester Chemiluminescent Probe for Sensitive and Selective Detection of Ectonucleotide Pyrophosphatase 1, ***Bioconjugate Chemistry***, *36(2):152-159* (2025).
115. Greenberg I, Khair-Dabour F, Merenbakh-Lamin K, Sokol ES, Goldberg AK, Simkin D, Spitzer A, Benhamou M, Bar-Shira S, Raz M, Grossman R, Yeini E, Ofek P, Meirson T, **Satchi-Fainaro R**, Reuveni H, Wolf I, Rubinek T, IRS2 as a driver of brain metastasis in colorectal cancer: A potential target for novel therapeutic strategies, ***Neuro-Oncology****,* 27(7):1729-1745 (2025).
116. Khoury R[¥], Longobardi G[¥], Barnatan T[¥], Venkert D, Alvarado AG, Yona A, Green Buzhor M, Wang Q, Zhao JJ, **Satchi-Fainaro R**, Enhancing the efficacy of PARP inhibitors in primary and metastatic BRCA1-deficient tumors with radiation-guided dual-drug nanoparticles, ***Journal of Controlled Release***, 383:113812 (2025).
117. Vax E, Caspi R, Shukrun R, Pode-Shakked N, Pleniceanu O, Golan H, Namestnikov M, Mark-Danieli M, Markovsky E, Bar-Lev DD, Barshack I, **Satchi-Fainaro R**, Harari-Steinberg O, Goldberg S, Dekel B. A novel Frizzled 7 antibody disrupts the Wnt pathway and inhibits Wilms tumor growth. ***Frontiers in Bioengineering and Biotechnology***, 13:1641137 (2025).
118. Carreira B, Acúrcio RC, Matos AI, Moura LIF, Afonso MB, Viana AS, Santos FMF, Gois PMP, Rodrigues CMP, Guedes RC, **Satchi-Fainaro R***, Florindo HF*, Polymeric-based neoantigen nanovaccine synergizes with PD-1/PD-L1 modulators, reprogramming the melanoma microenvironment, ***Journal of Controlled Release***, 387:114178 (2025). ****Corresponding authors.***
119. Laue K[‡], Pozzi S[‡], Zerbib J, Bertolio R, Eliezer Y, Cohen-Sharir Y, Winkler T, Caputo M, Ricci AA, Adler L, Khoury R, Longobardi J, Slutsky R, Leikin-Frenkel AI, Ovadia S, Lange K, Rustighi A, Piazza S**,** Sacconi A, Magesh RY, Keller FN, Berthelet J, Schäffer A, Saad R, Israeli Dangoor S, Szczepanowska K, Barshack I, Liao Y, Malitsky S, Brandis A, Broggini T, Czabanka M, Shi W, Merino D, Watson E, Blandino G, Erez A, Ashery-Padan R, Medyouf H, Bertero L, Del Sal G, **Satchi-Fainaro R***, Ben-David U*, p53 inactivation drives breast cancer brain metastasis via cell-autonomous and astrocyte-dependent increase of fatty acid metabolism*,* ***Nature Genetics,*** 58(1):116-131 (2026). ***‡Equal contribution. *Corresponding authors. News and Views:*** *Bakhoum, S.F. Aneuploidy-driven vulnerabilities in breast cancer metastasis.* ***Nature Genetics,*** *58, 14–15 (2026).*
120. Longobardi G, Shekhter P, Conte C, **Satchi-Fainaro R*,** Quaglia F*, Double-coated PLGA nanoparticles with hierarchical surface architecture for CD44-targeted siRNA delivery, ***Drug Delivery and Translational Research,*** doi: 10.1007/s13346-026-02115-8. (2026). ****Corresponding authors.***

121. Reshef K, Krinsky A, Monsonego M, Amar S, Malka N, Inbal K, Sheinin R, Yeini E, Burkett P, Kaminitz A, **Satchi-Fainaro R**, Shifrut E, Madi A, ICOS agonist therapy disrupts the function of tumor-infiltrating Tregs, *in revision* (2026).
122. Amar S‡, Liubomirski Y‡, Tiram G, Yeini E, Monsonego M, Salomon K, Weiss T, Katyal A, Avramoff O, Krinsky A, Reshef K, Dulberg S, Kaminitz A, Bar-On D, Ben Eliezer I, Iancu O, Rudnick-Glick S, Vuong T, Yap K, Taura T, Wilson D, Ayton P*, **Satchi-Fainaro R*,** Madi A*, Temporal kinetics of anti-PD-1-attenuated IL-2 fusion protein reveal successive waves of effector cells driving cancer immunity, *in revision* (2026). ***‡Equal contribution. *Corresponding authors.***
123. Katyal A‡, Avramoff O‡, Krinsky A‡, Dinstag G, Tirosh O, Maimon E, Aharonov R, Beker T, Lev-Ari S, Shapira-Frommer R, **Satchi-Fainaro R**, AI-guided *ex vivo* 3D patient-derived model enables personalized therapy and clinical response in mucosal melanoma: a case report, *in revision* (2026). ***‡Equal contribution.***
124. Kleiner R¥, Vaskovich-Koubi D¥, Roth Y, Miari A, Loewenstein S, Lahat G, Gordon S, Hershkovitz D, Florindo HF, **Satchi-Fainaro R**, Antigen and adjuvant nano-vaccine for stimulating lymph-node APCs to amplify immunity, remodel the TME, and boost standard-of-care efficacy in PDAC, ***Nature Cancer,*** *in revision* (2026). ***‡Equal contribution.***
125. Longobardi G, Miari A, Buderovsky E, Avramoff O, García Alvarado A, Liubomirski Y, Globerson-Levin A, **Satchi-Fainaro R**, A Synergistic Chemo-Immunotherapy Approach for Brain Tumors Using P-Selectin-targeted Nanoparticles and CAR-T Cells, ***ACS Nano Medicine***, *in revision* (2026).

REVIEW ARTICLES

126. Duncan R, Gac-Breton S, Keane R, Musila R, Sat YN, **Satchi R,** Searle F, Polymer-drug conjugates, PDEPT and PELT: Basic principles for design and transfer from the laboratory to the clinic, ***Journal of Controlled Release,*** **74**(1-3), 135-146 (2001).
127. **Satchi-Fainaro R**, Targeting tumour vasculature: reality or a dream?, *Journal of Drug Targeting*, **10(7)** 529-533 (2002).
128. **Satchi-Fainaro R** and Barnés CM, Drug delivery systems to target the tumor vasculature and the tumor cell, ***Drug Delivery Companies Report,*** Spring /Summer, 43-49 (2004).
129. Duncan R, Ringsdorf H, **Satchi-Fainaro R,** Polymer therapeutics–polymers as drugs, drug and protein conjugates and gene delivery systems: past, present and future opportunities. ***Journal of Drug Targeting***, **14(6),** 337-341 (2006).
130. Segal E and **Satchi-Fainaro R,** Design and Development of polymer conjugates as anti-angiogenic agents, Special Theme issue: Polymer Therapeutics: Clinical Applications and Challenges for Development, ***Advanced Drug Delivery Reviews,*** 61(13), 1159-1176 (2009)**.**
131. Ofek P, Miller K, Eldar-Boock A, Polyak D, Segal E, **Satchi-Fainaro R**, Rational design of multifunctional polymer therapeutics for cancer theranostics, Special Theme issue: Polymer Therapeutics as novel nanomedicines, ***Israel Journal of Chemistry***, 50 (2), 185-203 (2010). **(Cover feature)**.
132. David A and **Satchi-Fainaro R,** Special Theme issue: Polymer Therapeutics as novel nanomedicines, Editorial- Polymer Therapeutics- from bench to bedside, ***Israel Journal of Chemistry***, 50 (2), 145-146 (2010). **(Cover feature).**
133. Markovsky E, Baabur-Cohen H, Eldar-Boock A, Omer L, Tiram G, Ferber S, Ofek P, Polyak D, Scomparin A, **Satchi-Fainaro R**, Administration, distribution, metabolism and elimination of polymer therapeutics, Theme issue: Drug Delivery Research in Europe, ***Journal of Controlled Release***, 161, 446–460 (2012).
134. Polyak D*, Eldar-Boock A*, Baabur-Cohen H, **Satchi-Fainaro R**, Polymer conjugates for focal and targeted delivery of drugs, ***Polymers for Advanced Technologies***, 24, 777–790 (2013).
135. Eldar-Boock A*, Polyak D*, Scomparin A, **Satchi-Fainaro R**, Nano-sized polymers and liposomes designed to deliver combination therapy for cancer, ***Current Opinion in Biotechnology***, 24: 682–689 (2013).
136. Ben-Shushan D*, Markovsky E*, Gibori H*, Tiram G, Scomparin A, **Satchi-Fainaro R**, Overcoming obstacles in microRNA delivery towards improved cancer therapy, ***Drug Delivery and Translational Research,*** 4(1), 38-49 (2014).
137. Tiram G, Scomparin A, Ofek P, **Satchi-Fainaro R,** Interfering cancer with polymeric siRNA nanocarriers, ***Journal of Biomedical Nanotechnology***, 10, 50-66 (2014).

138. Scomparin A, Polyak D, Krivitsky A, **Satchi-Fainaro R**, Achieving successful delivery of oligonucleotides - From physico-chemical characterization to in vivo evaluation, ***Biotechnology Advances***, 33 (6pt3) 1294-1309 (2015).
139. Blau R, Krivitsky A, Epshtein Y, **Satchi-Fainaro R**, Are nanotheranostics and nanodiagnostics-guided drug delivery steppingstones toward precision medicine? ***Drug Resistance Updates***, 27:39-58 (2016).
140. Ofek P, Tiram G, **Satchi-Fainaro R**, Angiogenesis regulation by nanocarriers bearing RNA interference, ***Advanced Drug Delivery Reviews***, 119:3-19 (2017).
141. Silva AL, Peres C, Conniot J, Matos AI, Moura L, Carreira B, Sainz V, Scomparin A, **Satchi-Fainaro R**, Préat V, Florindo HF, Nanoparticle impact on innate immune cell pattern-recognition receptors and inflammasomes activation, ***Seminars in Immunology****, 34:3-24* (2017).
142. Scomparin A, Florindo HF, Tiram G, Ferguson EL, **Satchi-Fainaro R**, Two-step polymer- and liposome-enzyme prodrug therapies for cancer: PDEPT and PELT concepts and future perspectives, ***Advanced Drug Delivery Reviews***, 118:52-64 (2017).
143. **Satchi-Fainaro R**, Vicent MJ, Richardson S, Professor Ruth Duncan: A pioneer in the field of polymer therapeutics*,* ***Journal of Drug Targeting****,* 25(9-10):757-758 (2017).
144. Blau R, Neeman M, **Satchi-Fainaro R**, Emerging nanomedical solutions for angiogenesis regulation, ***Advanced Drug Delivery Reviews***, 119:1-2 (2017).
145. **Satchi-Fainaro R,** My greatest experiment, ***Nature Nanotechnology***, 13(2):176 (2018).
146. Acúrcio RC, Scomparin A, Conniot J, Salvador JAR, **Satchi-Fainaro R**, Florindo HF*, Guedes RC*, Structure-function analysis of immune checkpoint receptors to guide forthcoming multi-targeting anticancer immunotherapy, ***Journal of Medicinal Chemistry***, 61 (24), 10957–10975 (2018).
147. Acúrcio RC, Scomparin A, **Satchi-Fainaro R**, Florindo HF, Guedes RC, Computer-aided drug design in new druggable targets for the next generation of immune-oncology therapies, ***WIREs Computational Molecular Science***, e1397 (2018).
148. Matos AI, Carreira B, Peres C, Moura LIF, Conniot J, Fourniols T, Scomparin A, Martínez-Barriocanal Á, Arango D, Conde JP, Préat V, **Satchi-Fainaro R***, Florindo HF*. Nanotechnology is an important strategy for combinational innovative chemo-immunotherapies against colorectal cancer, ***Journal of Controlled Release,*** 307:108-138 (2019). ***Corresponding authors**.
149. Yeini E, Ofek P, Albeck N, Rodriguez D, Neufeld L, Eldar-boock A, Kleiner R, Vaskovich-Koubi D, Koshrovski-Michael S, Israeli Dangoor S, Krivitsky A, Burgos C, Shenbach G, Goldenfeld M, Hadad O, Tiram G, **Satchi-Fainaro R**, Targeting glioblastoma: advances in drug delivery and novel therapeutic approaches, ***Advanced Therapeutics***, 4(1), 2000124 (2020). *Chosen by the editorial team of *Advanced Therapeutics* to be featured in their Editor's Choice section.
150. Carreira B, Acúrcio RC, Matos A, Peres C, Pozzi S, Vaskovich-Koubi D, Kleiner R, Bento M, **Satchi-Fainaro R**, Florindo HF, Nanomedicines as multifunctional modulators of melanoma immune microenvironment, ***Advanced Therapeutics***, 4(1), 2000147 (2020).
151. Florindo HF, Kleiner R, Vaskovich-Koubi D, Acúrcio RC, Carreira B, Yeini E, Tiram G, Liubomirski Y, **Satchi-Fainaro R**, Immune-mediated approaches against COVID-19, ***Nature Nanotechnology****,* 15(8):630-645 (2020).
152. Peres C, Matos AI, Moura LIF, Acúrcio RC, Carreira B, Pozzi S, Vaskovich-Koubi D, Kleiner R, **Satchi-Fainaro R***, Florindo HF*, Preclinical models and technologies to advance nanovaccine development, ***Advanced Drug Delivery Reviews****,* 172:148-182 (2021).
153. Pozzi S, Scomparin A, Israeli Dangoor S, Rodriguez DA, Ofek P, Neufeld L, Krivitsky A, Vaskovich-Koubi D, Kleiner R, Dey P, Koshrovski-Michael S, Reisman N, **Satchi-Fainaro R**, Meet me halfway: Are in vitro 3D cancer models on the way to replace in vivo models for nanomedicine development? ***Advanced Drug Delivery Reviews,*** 175, 113760-113783 (2021).
154. Đorđević S, Gonzalez MM, Conejos-Sánchez I, Carreira B, Pozzi S, Acúrcio RC, **Satchi-Fainaro R**, Florindo HF, Vicent MJ, Current Hurdles to Advance Nanomedicine Translation from Bench to the Clinic, ***Drug Delivery and Translational Research***, *12(3):500-525* (2022).
155. Yeini E, **Satchi-Fainaro R,** The role of P-selectin in cancer-associated thrombosis and beyond, ***Thrombosis Research***, *213, Suppl. 1, S22-S28* (2022).
156. **Satchi-Fainaro R,** Florindo HF, Vicent MJ, Editorial: Clinically-relevant and predictive cancer models for nanomedicine evaluation, ***Advanced Drug Delivery Reviews****,* 183:114140 (2022).
157. Neufeld L[¥], Yeini E[¥], Pozzi S[¥], **Satchi-Fainaro R,** 3D-Bioprinted cancer models: from basic biology to drug development, ***Nature Reviews Cancer***, 22(12):679-692 (2022). [¥] **Equal contribution.**

158. Blau R, Shelef O, Shabat D, **Satchi-Fainaro R**, Chemiluminescence: From bioinspired material to unprecedented sensitivity for detection of tumorogenic activity, ***Nature Reviews Bioengineering***, 1, 648–664 (2023).
159. Pozzi S and **Satchi-Fainaro R**, The role of CCL2/CCR2 axis in cancer and inflammation: The next frontier in nanomedicine, ***Advanced Drug Delivery Reviews,*** 209:115318 (2024).
160. Longobardi G, Moore TL, Conte C, Ungaro F, **Satchi-Fainaro R**, Quaglia F, Polyester Nanoparticles delivering Chemotherapeutics: Learning from the past and looking to the future to enhance their clinical impact in tumor therapy, ***WIREs Nanomedicine and Nanobiotechnology,*** 16(5):e1990 (2024).
161. Carvalho HMB, Fidalgo TAS, Acúrcio RC, Matos AI, **Satchi-Fainaro R***, Florindo HF*, Better, Faster, Stronger: accelerating mRNA-based immunotherapies with nanocarriers, ***WIREs Nanomedicine and Nanobiotechnology,*** 16(6):e2017 (2024). ***Corresponding authors**.
162. Blandino G, **Satchi-Fainaro R**, Tinhofer I, Tonon G, Heilshorn SC, Kwon Y-G, Pestana A, Frascolla C, Pompili L, Puce A, Lachettini S, Tocci A, Karkampouna S, Kruithof-de Julio M, Tocci P, Porciello N, Maccaroni K, Rutigliano D, Shen X, Ciliberto G, Cancer organoids as reliable disease models to drive clinical development of novel therapies, ***Journal of Experimental & Clinical Cancer Research***, 43(1):334 (2024).
163. Vaskovich-Koubi D[¥], Green Buzhor M[¥], Krinsky A, Roth Y, Salomon K, Kleiner R, Sevostianov R, Hasin O, Khoury R, **Satchi-Fainaro R**, Patient-derived 3D-bioprinted models of pancreatic cancer: Toward personalized therapy and overcoming tumor microenvironment challenges, ***Advanced Drug Delivery Reviews,*** 225:115670 (2025).
164. Green Buzhor M[¥], Longobardi G[¥], Kandli O, Krinsky A, Abramoff O, Katyal A, Salomon K, Miari A, Venkert D, Barnatan TT, García Alvarado A, Greenberg S, **Satchi-Fainaro R**, Harnessing next-generation 3D cancer models to elucidate tumor–microbiome crosstalk, ***Advanced Healthcare Materials,*** e03198 (2025). (**Cover**).
165. Cordeiro J, Macela C, Kleiner R, Vaskovich-Koubi D, Moura LIF, **Satchi-Fainaro R***, Florindo HF*, Harnessing the power of microbiome, nanotechnology, and immunity against cancer, ***Journal of Controlled Release,*** 394:114839 (2026). ***Corresponding authors**.
166. Longobardi G[¥], Vaskovich-Koubi D[¥], Kleiner R[¥], **Satchi-Fainaro R**, Barrier-driven treatment failure in pancreatic ductal adenocarcinoma: a framework for nanomedicine intervention, ***Nature Communications***, *in revision* (2026). [‡]**Equal contribution.**

CHAPTERS IN BOOKS

167. Knox RJ, Melton RG, **Satchi R**, Enzyme-prodrug therapies of cancer. In: Polymeric Biomaterials (Second Edition) Ed, Dumitriu S, Marcel Dekker, New York, pp. 895-927 (2002).
168. **Satchi-Fainaro R** and Duncan R, Editor of two special volumes In Advances in Polymer Science: Polymer Therapeutics: Polymers as Drugs, Conjugates and Gene Delivery Systems, 192-193, Springer-Verlag, Heidelberg, Germany (2006).
169. **Satchi-Fainaro R**, Duncan R, Barnes CM, Polymer Therapeutics for cancer: current status and future challenges, In Advances in Polymer Science, Polymer Therapeutics II – Polymers as Drugs, Drug and Protein Conjugates and Gene Delivery Systems: 193, Springer-Verlag, Heidelberg, Germany, p. 1-65 (2006).
170. Duncan R, Ringsdorf H, **Satchi-Fainaro R**, Polymer Therapeutics - Polymers as Drugs, Drug and Protein Conjugates and Gene Delivery Systems: Past, present and future opportunities, In Advances in Polymer Science, Polymer Therapeutics I - Polymers as Drugs, Drug and Protein Conjugates and Gene Delivery Systems, 192, Springer-Verlag, Heidelberg, Germany, p. 1-8 (2006).
171. **Satchi-Fainaro R** and Mann-Steinberg H, TNP-470: The resurrection of the first synthetic angiogenesis inhibitor, In: Angiogenesis: An integrative approach from science to medicine. Editors: William Figg and Judah Folkman, Springer-Verlag, Heidelberg, Germany, Chapter 35, p. 387-406 (2008).
172. Miller K and **Satchi-Fainaro R**, Polymer Therapeutics: From novel concepts to clinical applications, In Wiley Encyclopedia of Chemical Biology, Ed. N. R. Civjan, John Wiley & Sons, Inc. Hoboken, 3, 783-799 (2009).
173. Eldar-Boock A, Polyak D, **Satchi-Fainaro R**, Ligand-assisted vascular targeting of polymer therapeutics, In Drug Delivery in Oncology - From Basic Research to Cancer Therapy, Eds. Kratz F and Senter P, Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany, 2, p. 591-625 (2011).
174. Baabur-Cohen H, Omer L, **Satchi-Fainaro R**, Recent progress in polymer therapeutics as nanomedicines, In Handbook of Harnessing biomaterials in Nanomedicine: Preparation, toxicity and

applications, Ed. Peer D, Pan Stanford Publishing Pte. Ltd., Hackensack, NJ, USA, Chapter 4, p. 77-122 (2011).
175. Gabizon A, Shmeeda H, Baabur H, **Satchi-Fainaro R**, Targeting the folate receptor with liposomes and polymer therapeutics, In Targeted Drug Strategies for Cancer and Inflammation, Eds. Leamon C and Jackman A, Springer-Verlag, Heidelberg, Germany, p. 217-247 (2011).
176. Ferber S, Tiram G, **Satchi-Fainaro R**, Targeting Drugs to Cancer: A Tough Journey to the Tumor Cell, In Cancer Targeted Drug Delivery: An Elusive Dream, Eds. Han Bae Y, Mrsny R and Park K, Springer Science and Business Media, New York, Part V, 509-542 (2013).
177. Scomparin A*, Tiram G*, **Satchi-Fainaro R**, Nanoscale-based delivery of RNAi for cancer therapy, Erdmann VA and Barciszewski J (Eds.), In: DNA and RNA Nanobiotechnologies in Medicine: Diagnosis and Treatment of Diseases, RNA Technologies, Springer-Verlag Berlin Heidelberg, 349-372 (2013).
178. Israeli Dangoor S, Koshrovski Michael S, Baabur-Cohen H, Omer L, **Satchi-Fainaro R**, Recent Progress in Polymer Therapeutics as Nanomedicines, In Handbook of Harnessing biomaterials in Nanomedicine: Preparation, toxicity and applications, Ed. Peer D, Pan Stanford Publishing Pte. Ltd., Hackensack, NJ, USA, Chapter 4, p. 77-122 (2020).

PATENTS (Selected from 95)

Activatable fluorogenic compounds and uses thereof as near infrared probes	Granted	United states	14/027,219	9,341,630
Activatable fluorogenic compounds and uses thereof as near infrared probes	Granted	United states	15/131,129	10,071,983
Polymeric systems and uses thereof in theranostic applications	Granted	United states	15/124,360	10,532,113
Taggable heteroaromatic drugs and conjugates thereof	Granted	United states	15/737,247	10,420,845
Taggable heteroaromatic drugs and conjugates thereof	Granted	Europe	16811143.3	3310787
Taggable heteroaromatic drugs and conjugates thereof	Granted	Germany	16811143.3	60 2016 028 882.6
Taggable heteroaromatic drugs and conjugates thereof	Granted	France	16811143.3	3310787
Taggable heteroaromatic drugs and conjugates thereof	Granted	Italy	16811143.3	3310787
Taggable heteroaromatic drugs and conjugates thereof	Granted	Spain	16811143.3	3310787
Taggable heteroaromatic drugs and conjugates thereof	Granted	Switzerland	16811143.3	3310787
Taggable heteroaromatic drugs and conjugates thereof	Granted	United kingdom	16811143.3	3310787
Polyaminated polyglutamic acid-containing compounds and uses thereof for delivering oligonucleotides	Granted	United states	15/764,429	
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	United states	16/072,848	10/660,974
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	Europe	17743844.7	3408349
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	Canada	3,011,328	3,011,328
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	Brazil	1.12018e+12	112018015334 6

Chemiluminescent probes for diagnostics and in vivo imaging	Granted	China	2.0178e+11	Zl201780020284.2
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	Japan	2018-539034	6915943
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	South korea	10-2018-7024288	10-2717614
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	India	2.01827e+11	450600
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	United states	16/850,333	11,179,482
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	Belgium	17743844.7	3408349
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	France	17743844.7	3408349
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	Germany	17743844.7	3408349
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	United kingdom	17743844.7	3408349
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	Ireland	17743844.7	3408349
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	Italy	17743844.7	3408349
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	Netherlands	17743844.7	3408349
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	Spain	17743844.7	3408349
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	Switzerland	17743844.7	3408349
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	United states	16/850,333	11,179,482
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	United states	17/451,536	11,931,429
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	Brazil	122022024633 8	Br 122022024633 8
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	Brazil	122022024635 4	122022024635 4
Chemiluminescent probes for diagnostics and in vivo imaging	Granted	United states	18/428,591	12,357,709
Polymeric conjugates and uses thereof	Granted	United states	16/079,123	11,666,656
Polymeric conjugates and uses thereof	Granted	Europe	17755949.9	3419668
Polymeric conjugates and uses thereof	Granted	France	17755949.9	3419668
Polymeric conjugates and uses thereof	Granted	Germany	17755949.9	3419668
Polymeric conjugates and uses thereof	Granted	United kingdom	17755949.9	3419668
Three-dimensional tumor models, methods of manufacturing same and uses thereof	Granted	United states	16/476,323	12,486,494
Three-dimensional tumor models, methods of manufacturing same and uses thereof	Granted	Europe	18736000.3	

Polymeric nanovaccines and uses thereof	Granted	Europe	19901899.5	
Polymeric nanovaccines and uses thereof	Granted	United states	17/418,977	
Polymeric nanovaccines and uses thereof	Granted	United states	19/298,211	
Methods of treating glioblastoma	Granted	United states	18/122,194	
Methods of treating glioblastoma	Granted	Europe	21868882.8	
Modulators of pd-l1/pd-1 interaction and uses thereof	Granted	United states	18/235,392	
Modulators of pd-l1/pd-1 interaction and uses thereof	Granted	Europe	22755712.1	
Water soluble prodrug, conjugates and uses thereof	Granted	United states	18/292,046	
Three-dimensional tumor model of glioblastoma and brain metastasis, methods of manufacturing same and uses thereof	Granted	Europe	22848834.2	
Treatment of brain metastasis	Granted	United states	19/038,800	
P-selectin inhibition for treatment of cancer	Granted	United states	18/885,825	
Bioreactors for perfusing cells	Filed	United states	19/349,013	
Bioreactors for perfusing cells	Filed	Europe	24784549.8	
P-selectin targeted nanoparticles and uses thereof	Granted	United states	19/287,868	
P-selectin targeted nanoparticles and uses thereof	Granted	Europe	24749837.1	