

PERSONAL INFORMATION



Luca Vannucci

President of the Czech Immunological Society

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<https://mbucas.cz/vyzkum/immunologie/laborator-imunoterapie/>

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Sex male | Date of birth 05/05/1956 | Nationality Italian

WORK EXPERIENCE

2012 – present

Head of the Laboratory of Immunotherapy

IMIC CAS, Vídeňská 1083, 14220 Prague 4, Czech Republic, <http://mbucas.cz/>

- Scientific direction and managing, tutoring of students, preparation of papers and projects, scientific results propagation, national and international contacts and conferences organization, crowdfunding and financial management of the Lab

2009 – 2011

Business or sector tumor microenvironment immunology, immunotherapy, and theranostics

Head of the Laboratory of Natural Cell Immunity,

IMIC CAS, Prague 4, CZ

- As above

2005 – 2009

Business or sector tumor microenvironment immunology and innate immunity

Senior researcher in the Laboratory of Natural Cell Immunity

IMIC CAS, Prague 4, CZ

- Tumor modelling, fluorescence and confocal microscopy, immune cell modulation

Business or sector innate immunity and anticancer immunomodulation

1990 – 2004

Surgeon/assistant professor

Department of Transplants, Oncology and New Technics in Surgery, University of Pisa, Medical Faculty, Pisa, Tuscany, IT

- Cancer surgery, teaching and tutoring students, development of experimental tumor models for anticancer research

Business or sector Cancer surgery, oncology, experimental surgery, cancer modeling

1989 - 1990

Assistant surgeon

Department of General Surgery, Polo Riabilitativo di Fivizzano: Fivizzano, Tuscany, IT

- General surgery, treatment and follow-up of cancer patients

Emergency doctor

1981-1989

Night Emergency service and Emergency Service for Tourists in ASL Versilia and Area Grossetana.

EDUCATION AND TRAINING

2001 -2008

PhD in immunology

Faculty of Sciences, Charles University in Prague and IMIC CAS, Prague, CZ

- Innate immunity modulation, comparison of immunity and cancer development in germ-free and conventional animals in original colorectal cancer model (Vannucci 1994)

1988-1991 Postgraduate Specialization in Medical Oncology (diploma) t

Faculty of Medicine, Department of Oncology, University of Milan: Milan, IT

- Cancer biology, pathology, diagnosis, treatment, prevention and follow-up
Final score: Full cum laude

1986-1987 Rotary Foundation Fellowship in cancer surgery (Surgical research fellow) at the University of Chicago (IL, USA) and Certificate in Experimental Carcinogenesis (with commendation for excellence) by Nobel Laureate Prof. C. B. Huggins.

The Billings Hospital Department of Surgery (tutor: Prof. F. Michelassi) and the Ben May Laboratory for cancer research (Tutor: Prof. C.B. Huggins, Head and Nobel Laureate), Faculty of Medicine, University of Chicago, Chicago, IL, USA

- Attendance to regular surgery, transplantation surgery, cancer surgery, clinical research, laboratory cancer research and experimental cancer modelling in vivo (course of Experimental Carcinogenesis with Prof. C.B. Huggins)

1982 -1987 Postgraduate Specialization in General Surgery (diploma)

Faculty of Medicine, Department of Clinical Surgery, University of Pisa: Pisa, Toscana, IT

- General surgery operation training, diagnosis, treatment and follow-up of the surgical patients, including transplantation and vascular surgery patients, emergency and regular practices at the bedside, intensive care, experimental surgery. Final score: Full cum laude

1975 -1981 • **Graduated M.D.** Faculty of Medicine, University of Pisa, Pisa, IT **Graduated with 110/110**

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C1
	Replace with name of language certificate. Enter level if known.				
Czech	B2	B1	B2	B2	B1
	Replace with name of language certificate. Enter level if known.				

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills

- good communication skills gained through my experience as a doctor and a conference speaker

Organisational / managerial skills

- President of the Czech Immunological Society 2018-2021; 2022-2024; 2025-2027
- 2010-2018 member of the Czech Immunological Society Board
- currently responsible for a team of 11 people + 2 high school students in the program Otevřená věda/Open science CAS and ERASMUS+ students during the year.
- Grants: Grant Agency of the Czech Academy of Sciences (IAA500200510 and IAA500200917); MSMT (COST LD15135, ended 2017), external collaborator in the Italian grants (Associazione Italiana per la Ricerca sul Cancro – AIRC), AIRC MFAG10545 and AIRC IG 2015 Id.16776
- At present - Co-responsible of AZV NU23-08-00071 Grant (Czech Ministry of Health) and of the project National Institute for Cancer Research (Programme EXCELES, ID Project No. LX22NPO5102) - Funded by the European Union –Next Generation EU; responsible of donations for research granted by Generali/Ceska pojistovna Foundation, and UniCredit Bank CZ&SK.
- running traineeships ERASMUS+ (students and scientists since 2010, except on COVID-19 period)
- crowdfunding for the Laboratory by private donations, and commercial contracts (PROTERA s.r.l., Sesto Fiorentino, IT, FERBI s.r.l. Mosciano Sant'Angelo (IT) and AUMED a.s. Prague, CZ; BIOINTEGRATED MEDICAL SERVICE LIMITED, Brentford, London, GB)
- organization of visits and lectures of international scientists in the Lab and in IMIC since 2010
- Organization of symposia, workshops, congresses in onco-immunology since 2010 (e.g.23.4.2012 - mimořádné mezinárodní sympozium k 50. výročí Ústavu mikrobiologie AV ČR: DAY OF IMMUNOLOGY „Toward new frontiers“; CITIM 2017, Prague 24-27 April 2017)
- Czech Manager and Area Leader of WG2Theranostics in the COST Action MiMED 2014-2017
- founder of the CIS-ARPA “M.Pospíšil, M.Campa and F. Mosca Award” for Czech Immunological Society for researchers working on innate immunity and tumor immunology, since 2008.
- Organizer of the CIS-IMIC Summer School on Tumor Microenvironment and Immunity, Nove Hradky in South Bohemia 12-15/07/2023 and 26-29/06/2024

Job-related skills

- Reviewer for national (GAUK, IGA MZ, and international grant agencies and institutions (**InCa Paris, FR, 2012-2014**; MIUR, IT, VEGA, SK, Poland, Israel, Ireland)
- Reviewer for international journals (Nature Communications, Cancer Imm Immunoth, Carcinogenesis, Carbohydrate Polymers, Nanomedicine, Int J Oncol, PlosOne, Molecules, Folia Microbiol, Curr Opinion In Pharmacology etc.)
- Member of editorial board of Carcinogenesis (Oxford, GB until 2023); Molecules (Basel, CH), Journal of immunotoxicology (New York, USA); Molecular Medicine Reports (Athens, GR/London, GB); Experimental and Therapeutic Medicine (London, GB); The World Academy of Sciences Journal (Athens/London); Asian Pacific Journal of Tropical Medicine; Journal of Hainan Medical University (Hainan, China; Medicine International (Athens/London).
- Scientific consultant and coordinator of the Italian researchers in CZ for the Italian Embassy in CZ
- 2025-2027 Member of the Peer Review Panel of international Experts at the Extreme Light Infrastructure ERIC (ELI ERIC) European research infrastructure of excellence, leading high-power laser research facility (Dolny Brezany, CZ)
- Elected Scientific member of the COMITES CZ (Italian commission in CZ belonging to the Italian Ministry of Foreign Affairs, in connection with the Italian Embassy in Prague to interface from Italian residents in CZ and local institutions)

Computer skills	<ul style="list-style-type: none"> good command of Microsoft Office™ tools, Corel
Other skills	<ul style="list-style-type: none"> painting, singing
Driving licence	<ul style="list-style-type: none"> B

ADDITIONAL INFORMATION

- 1985 Winner of Rotary Found. Intern. Fellowship, Univ. of Chicago (Chicago, IL, USA) 1986 –87
- 1991 Farini Award for GI tract cancer research (University of Padua, IT)
- 1997 Award of the Cancer Research Foundation of Pakistan (Lahore, Pakistan)
- 1998 Award of the Surgical Society of Nepal (Kathmandu, Nepal)
- 1998 and 2008 Awarded by the Italian Society of Microwaves (Pisa/Rome, Italy) for anticancer research in hyperthermia treatments
- 2010 invited lectures at the National Cancer Institute (NCI, Frederick, MD, USA), and National Institute of Health (NIH, Bethesda, MD, USA)
- 2011 Golden Budge of the Italian-Czech Commercial Chamber (Prague, CZ) eminent Italian in CZ
- 2019 - awarded Officer of the Order of the Star of Italy by the President of the Italian Republic Sergio Mattarella, as a relevant representative of Italy in the Czech Republic for merits in the medical-scientific field and social and international relations**
- 2022 – The First “Prof. Franco Mosca Award” of the ARPA Foundation (Pisa, Italy) for scientific and humanitarian merits

H-index (ResearchGate): 29 Citations (ResearchGate): 3 705 Reads: 28 245

Publications

(selected papers):

- Sushytskyi L, Synytsya A, Lukáč P, Rajsiglová L, Capek P, Pohl R, Bleha R, Vannucci LE, Smrz D, Čopíková J, Kaštánek P. Immunologically active cell wall polysaccharides of green microalga Dictyosphaerium chlorelloides (Chlorellaceae). Carbohydr Polym. 2025 Apr 1;353:123242. doi: 10.1016/j.carbpol.2025.123242. Epub 2025 Jan 9. PMID: 39914971
- Tisci G, Rajsiglova L, Bibbo S, Ziccheddu G, Ricciardi E, Falvo E, De Laurenzi V, Sala G, Capone E, Colotti G, Arcovito A, Giacon N, Makovický P, Sushytskyi L, Lukac P, Vannucci L, Giacomini P, Ceci P. A first-in-class non-cytotoxic nanocarrier based on a recombinant human ferritin boosts targeted therapy, chemotherapy and immunotherapy. Int J Biol Macromol. 2025 May;309(Pt 1):142843. doi: 10.1016/j.ijbiomac.2025.142843. Epub 2025 Apr 3. PMID: 40187454.
- Bláha P, Prise KM, Borghesi M, Cammarata FP, Catalano R, Chaudhary P, Cirrone GAP, Davidková M, Doria D, Forte GI, Grepl F, Hideghéty K, Istoksaia V, Manti L, McCay A, Navrátil M, Novák J, Pappalardo A, Petringa G, Russo G, Schettino G, Schillaci F, Szabó ER, Sotkowski P, Tryus M, Vannucci LE, Vondráček V, Margarone D and Giuffrida L (2025) ELIMAIA-ELIMED: a new user platform for radiobiological research utilizing laser-driven protons. Front. Phys. 13:1567622. doi: 10.3389/fphy.2025.1567622
- Rajsiglova L, Babic M, Krausova K, Lukac P, Kalkusova K, Taborska P, Sojka L, Bartunkova J, Stakheev D, Vannucci L, Smrz D. Immunogenic properties of nickel-doped maghemite nanoparticles and the implication for cancer immunotherapy. J Immunotoxicol. 2024 Dec;21(1):2416988. doi: 10.1080/1547691X.2024.2416988. Epub 2024 Nov 1. PMID: 39484726.
- Kalkusova K, Taborska P, Stakheev D, Rataj M, Smite S, Darras E, Albo J, Bartunkova J, Vannucci L, Smrz D. Impaired Proliferation of CD8+ T Cells Stimulated with Monocyte-Derived Dendritic Cells Previously Matured with Thapsigargin-Stimulated LAD2 Human Mast Cells. J Immunol Res. 2024 Jul 18;2024:5537948. doi: 10.1155/2024/5537948. PMID: 39056014; PMCID: PMC11272405.
- Taborska P, Lukac P, Stakheev D, Rajsiglova L, Kalkusova K, Strnadova K, Lacina L, Dvorankova B, Novotny J, Kolar M, Vrana M, Cechova H, Ransdorfova S, Valerianova M, Smetana K Jr, Vannucci L, Smrz D. Novel PD-L1- and collagen-expressing patient-derived cell line of undifferentiated pleomorphic sarcoma (JBT19) as a model for cancer immunotherapy. Sci Rep. 2023 Nov 4;13(1):19079. doi: 10.1038/s41598-023-46305-7. PMID: 37925511; PMCID: PMC10625569.
- Sushytskyi L, Synytsya A, Čopíková J, Lukáč P, Rajsiglová L, Tenti P, Vannucci LE. Perspectives in the Application of High, Medium,

- and Low Molecular Weight Oat β -d-Glucans in Dietary Nutrition and Food Technology-A Short Overview. *Foods*. 2023 Mar 7;12(6):1121. doi: 10.3390/foods12061121. PMID: 36981048; PMCID: PMC10048208.
- Saha B, Vannucci L, Saha B, Tenti P, Baral R. Evolvability and emergence of tumor heterogeneity as a space-time function. *Cytokine*. 2023 Jan;161:156061. doi: 10.1016/j.cyto.2022.156061. Epub 2022 Oct 15. PMID: 36252436.
 - Kalkusova K, Smite S, Darras E, Taborska P, Stakheev D, Vannucci L, Bartunkova J, Smrz D. Mast Cells and Dendritic Cells as Cellular Immune Checkpoints in Immunotherapy of Solid Tumors. *Int J Mol Sci*. 2022 Sep 21;23(19):11080. doi: 10.3390/ijms231911080. PMID: 36232398; PMCID: PMC9569882
 - Casula, F.; Lodi, M.B.; Curreli, N.; Fedeli, A.; Scapaticci, R.; Muntoni, G.; Randazzo, A.; Djuric, N.; Vannucci, L.; Fanti, A. Microwaves as Diagnostic Tool for Pituitary Tumors: Preliminary Investigations. *Electronics* 2022, 11, 1608. <https://doi.org/10.3390/electronics11101608>
 - Mucciolo G, et al. IL17A critically shapes the transcriptional program of fibroblasts in pancreatic cancer and switches on their protumorigenic functions. *Proc Natl Acad Sci U S A*. 2021 Febr 9; 118(6):e2020395118. doi: 10.1073/pnas.2020395118
 - Čaja F, et al. Local Immune Changes in Early Stages of Inflammation and Carcinogenesis Correlate with the Collagen Scaffold Changes of the Colon Mucosa. *Cancers (Basel)*. 2021 May 18;13(10):2463. doi: 10.3390/cancers13102463
 - Čaja F, et al. Immune activation by microbiome shapes the colon mucosa: Comparison between healthy rat mucosa under conventional and germ-free conditions. *J Immunotoxicol*. 2021 Dec;18(1):37-49. doi: 10.1080/1547691X.2021.1887412. PMID: 33749490
 - Vetvicka V, Sima P, Vannucci L. Trained Immunity as an Adaptive Branch of Innate Immunity. *Int J Mol Sci*. 2021 Oct 1;22(19):10684. doi: 10.3390/ijms221910684. PMID: 34639025; PMCID: PMC8508929.
 - Raskova Kafkova L, et al. Secretory IgA N-glycans contribute to the protection against E. coli O55 infection of germ-free piglets. *Mucosal Immunol*. 2021 Mar;14(2):511-522. doi: 10.1038/s41385-020-00345-8
 - Sushytskyi L, et al. Immunoactive polysaccharides produced by heterotrophic mutant of green microalga *Parachlorella kessleri* HY1 (*Chlorellaceae*). *Carbohydr Polym*. 2020 Oct 15;246:116588. doi: 10.1016/j.carbpol.2020.116588. Epub 2020 Jun 12. PMID: 32747247.
 - Tenti P, Vannucci L. Lysyl oxidases: linking structures and immunity in the tumor microenvironment. *Cancer Immunol Immunother*. 2020 Feb;69(2):223-235. doi: 10.1007/s00262-019-02404-x.
 - Vetvicka V, Vannucci L, Sima P. β -glucan as a new tool in vaccine development. *Scand J Immunol*. 2020 Feb;91(2):e12833. doi: 10.1111/sji.12833
 - Castaño LF, et al. New chalcone-sulfonamide hybrids exhibiting anticancer and antituberculosis activity. *Eur J Med Chem*. 2019 Aug 15;176:50-60. doi: 10.1016/j.ejmech.2019.05.013
 - Marelli G, Sica A, Vannucci L, Allavena P. Inflammation as target in cancer therapy. *Curr Opin Pharmacol*. 2017 Aug;35:57-65. doi: 10.1016/j.coph.2017.05.007
 - Vannucci L, et al. In Vivo Targeting of Cutaneous Melanoma Using an Melanoma Stimulating Hormone-Engineered Human Protein Cage with Fluorophore and Magnetic Resonance Imaging Tracers. *J Biomed Nanotechnol*. 2015 Jan;11(1):81-92. doi: 10.1166/jbn.2015.1946. PMID: 26301302.
 - Vannucci L, et al. Immunostimulatory properties and antitumor activities of glucans (Review). *Int J Oncol*. 2013 Aug;43(2):357-64. doi: 10.3892/ijo.2013.1974.
 - Vannucci L, et al. Selective targeting of melanoma by PEG-masked protein-based multifunctional nanoparticles. *Int J Nanomedicine*. 2012;7:1489-509. doi: 10.2147/IJN.S28242
 - Taskalová-Hogenová H, et al.. The role of gut microbiota (commensal bacteria) and the mucosal barrier in the pathogenesis of inflammatory and autoimmune diseases and cancer: contribution of germ-free and gnotobiotic animal models of human diseases. *Cell Mol Immunol*. 2011 Mar;8(2):110-20. doi: 10.1038/cmi.2010.67
 - Chernyavskiy O, Vannucci L, et al. Imaging of mouse experimental melanoma in vivo and ex vivo by combination of confocal and nonlinear microscopy. *Microsc Res Tech*. 2009 Jun;72(6):411-23. doi: 10.1002/jemt.20687.
 - Vannucci L, et al. Colorectal carcinogenesis in germ-free and conventionally reared rats: different intestinal environments affect the systemic immunity. *Int J Oncol*. 2008 Mar;32(3):609-17
 - Michelassi F, Vannucci LE, et al. Ras oncogene expression as a prognostic indicator in rectal adenocarcinoma. *J Surg Res*. 1988 Jul;45(1):15-20. doi: 10.1016/0022-4804(88)90015-7.
 - Michelassi F, Block GE, Vannucci L, et al. A 5- to 21-year follow-up and analysis of 250 patients with rectal adenocarcinoma. *Ann Surg*. 1988 Sep;208(3):379-89. doi: 10.1097/0000658-198809000-00016. PMID: 3421761; PMCID: PMC1493650.

Presentations

(selected)

- Vannucci L. Smoldering inflammation and collagen remodeling condition the tumor microenvironment immunity. International conference on Progresses in Vaccines Against Cancer PIVAC 2024 26-28 November 2024, Prague, Czech Republic (co-chair lecture)
- Vannucci L., Sushytskyi L., Lukáč P., Rajsiglová L., Tenti P. Beta glucans as an integrative treatment for breast cancer patients. 29th international conference SEKAMA SOS SLS, 23-24/05/2024, Bratislava, Slovakia, (invited)
- Vannucci L. Smoldering inflammation models the tissue and tumor microenvironment. ISCR & IIS joint Immuno-Oncology meeting "A tale of cytokines, immunity, microenvironment and cancer" in memory of Prof. Roni Apte. Invited lecture as Dozor Visiting Scholar at the Faculty of Health Sciences, Ben-Gurion University of the Negev. 17-18/04/2024, Ben-Gurion University of the Negev, Beer Sheva, Israel
- L. Vannucci, P. Tenti, P. Lukáč, L. Rajsiglová, F. Čaja, D. Stakheev, D. Vondrášek, Renata Štěpánková, T. Hudcovic, P. Makovický, Petr Šima, Daniel Smrz. Gut microbiome can influence local and distant immune environment and tissue structures: a germ-free animal lesson perspective also for cancer-microbiome relationships. Czech Annual Cancer Research Meeting, Olomouc (CZ), 20-22/11/2023, (invited)
- L. Vannucci, F. Čaja, D. Stakheev, P. Lukáč, L. Rajsiglova, P. Tenti, D. Vondrasek, G. Mucciolo, R. Štěpánková, P. Makovický, P. Makovický, T. Hudcovic, P. Šima, D. Smrz. Smoldering inflammation sustains tissue structure changes and tumor microenvironment development. 26th International Symposium on Molecular Medicine – Tivoli (Rome, IT) 2-4 /11/2023 (invited)
- Luca Vannucci, Fabián Čaja, Dmitry Stakheev, Pavol Lukáč, Lenka Rajsiglova, Paolo Tenti, et Al. Smoldering inflammation, an insidious support to the tumor microenvironment development. INTERNATIONAL CONFERENCE ON CANCER IMMUNOTHERAPY AND IMMUNOMONITORING (CITIM) 2023 – Vilnius (Lithuania) April 24-27, 2023 (invited)
- Luca Vannucci, Fabián Čaja, Dmitry Stakheev, Pavol Lukáč, Lenka Rajsiglová, Paolo Tenti, et al.: Smouldering inflammation: from tissue remodeling to cancer niche. 5th meeting of Middle European Societies of Immunology and Allergology - MESIA, 23-26/11/2022, Prague, CZ. Eur. J. Immunol. 2023. 53(Suppl. 1): 24-25; DOI: 10.1002/eji.202370200 (chair of the congress)
- Luca Vannucci, Fabián Čaja, Dmitry Stakheev, Pavol Lukáč, Lenka Rajsiglova, Paolo Tenti, et al.. Microbiota and smoldering inflammation shape the colon mucosa microenvironment. XXXIX. sjezd českých a slovenských alergologů a klinických imunologů, XVIII. kongres českých a slovenských imunologů. 5–8/10/2022, Prague (CZ). Alergie Suppl 1/2022 p. 39 (invited)
- Vannucci L., et al. Morphology and immunity in transforming tissues: looking for the tumor niche. 6th International Conference Cancer Immunotherapy and Immunomonitoring (CITIM), Tbilisi Georgia, April 29 - May 2 2019
- Luca Vannucci, et al.. Gadolinium-based nanoparticles for targeting the tumor microenvironment. 22nd World Congress on Advances in Oncology, Athens, Greece, 5-7/10/2017, (invited)
- Vannucci L. Theranostics - Nanoconstructs for tumor microenvironment and tumor cell targeting. COST TD1301 MiMed Meeting Bristol, Great Britain, 25 – 27 /03/2015, (invited)
- Vannucci L. Microbiota and stroma in colon carcinogenesis. International Meeting "Cancer: Inflammation and Immunity" of NCI- NIH Friederik/Bethesda USA, NCT Heidelberg GE & NITB Siena IT, Finalborgo (Finale Ligure, Italy), 16-18/09/2015 (invited)
- Vannucci L., et al. Modelling inflammatory micro-environment: stroma and antitumor immunity interactions. 18th World Congress on Advances in Oncology and 16th International Symposium on Molecular Medicine, October 10-12, 2013, Hersonissos, Crete, Greece (invited)
- L. Vannucci, et.al. Gut in local and systemic anticancer response: a lesson from germ-free and conventionally reared animals. Proceedings of the 12th International nutrition & diagnostics conference – INDC 2012, 27-30 August 2012 – Charles University, Prague (CZ) (invited)
- Vannucci L, et al: New perspectives in the treatment of melanoma by a glycobiological approach: results in mouse experimental model. Invited lecture at the EHRLICH II –2nd World Conference on Magic Bullets http://www.ehrlich2008.org/Abstractbook_2008.doc (invited)
- Vannucci L: Tumor microenvironment, inflammation and anticancer vaccines: looking for new perspectives. Key-note lecture at the BIT Life Sciences' World Vaccine Congress-2008, December 1-5, 2008, Foshan, China, Book of Abstracts, p.167, 2008 (invited)
- Vannucci L: A paradoxical hypothesis: might a controlled immune suppression help to rescue the immune response in a pro-inflammatory tumor microenvironment? Book of Program and Abstracts of the 4th International Conference on "Tumor Microenvironment: Progression, Therapy and Prevention" - (March 6-10, 2007, Florence, Italy), p.47, 2007 – Lecture

