Università degli Studi di Roma "Tor Vergata"

CURRICULUM DIDATTICO-SCIENTIFICO DEL PROF. ROBERTO BEI

DATI PERSONALI

Nome e Cognome: Roberto Bei
Luogo e data di nascita: Roma, 22/05/1964

***ATTUALE POSIZIONE*:** Professore Ordinario di Patologia Generale
Dipartimento: Scienze Cliniche e Medicina Traslazionale
Indirizzo: Via Montpellier 1
Numero studio: +390672596522
E-mail: bei@med.uniroma2.it
Orario ricevimento: tutti i giorni previo appuntamento
Settore scientifico-disciplinare: MED04

ATTIVITA' DIDATTICA - SCIENTIFICA

Titoli accademici e di studio:
1989. Laurea in Medicina e Chirurgia (110/110 e Lode), Università "La Sapienza". **1989. Abilitazione Professione Medico Chirurgo**, Università "La Sapienza", Albo Ordine Medici di Roma. NO: 41370. **1993. Specializzazione in Oncologia Medica** (70/70 e lode), Università "La Sapienza". **1998. Dottore di Ricerca**, Università "La Sapienza". **2002. Specializzazione in Patologia Clinica** (70/70 e lode), Università "La Sapienza".
2001-2006. **Ricercatore, SSD MED04 (Patologia Generale)**, Facoltà di Medicina e Chirurgia, Università di Roma "Tor Vergata". **2006-2017. Professore Associato, SSD MED04 (Patologia Generale)**, Facoltà di Medicina e Chirurgia, Università "Tor Vergata".
2017. Professore Ordinario, SSD MED04 (Patologia Generale). Facoltà di Medicina e Chirurgia, Università "Tor Vergata".
2018-oggi. **Presidente del Corso di Laurea Magistrale in Biotecnologie Mediche**, Università di Roma "Tor Vergata".

Formazione post-laurea presso istituzioni italiane ed estere ed incarichi professionali
1989. Borsa di studio CIFA. **1990. Borsa di studio CIVA**. **1992-1996. Fogarty Visiting Fellow** "EOS, LTIB, NCI, **NIH, Bethesda USA**" (Dr. J. Schlom).
Insegnamento di Patologia Generale nel CL Medicina e Chirurgia (Italiano ed Inglese), Farmacia (Inglese), Biotecnologie Mediche, Dietistica, Tec. Lab Biomed, Tec Prev Amb Luoghi Lav, nelle Specializzazioni in Oncologia, Radioterapia, Ortopedia, Anat. Patol, Endocrinologia (**Università "Tor Vergata"**), nel CL S. Nutrizione Umana e S. Attiv Motorie Prev e Adat (**Univ. Telematica, San Raffaele**) e Medicina e Chirurgia (**Universiteti Katolik "Zoja e Keshillit te Mire", Tirana**).
Editorial Board: Rec Pat Infl Aller Drug Discov (2009-oggi), J Liver (2011-oggi), O J Immunol (2011-oggi), MOJ Immunol (2014-oggi), Front Biosc (2016-oggi), Anti-Cancer Ag Med Chem (2015-oggi), Int J Oncol (2017-oggi), Front Pharmacol e Front Oncol (Rev Editor) (2017-oggi).

Finanziamenti e premi ricevuti per attività di ricerca:
2007. RSA "Tor Vergata": Risposta immunitaria umorale nei confronti delle proteine ribosomiali P in pazienti con tumori cervico-facciali. **2007/08. FAA "Tor Vergata"**: Risposta immunitaria verso componenti della matrice extracellulare (MEC), proteine dello stress termico (HSPs) e della famiglia delle proteine ribosomiali P in pazienti sottoposti ad impianto dentale". **2008. RSA "Tor Vergata"**: Effetto del resveratrolo e del diallil disulfide sulla crescita di linee cellulari tumorali di origine mesenchimale. **2007/08. PRIN, MIUR**: Risposta immunitaria verso componenti della matrice extracellulare, proteine dello stress termico e della famiglia delle proteine ribosomiali P in pazienti sottoposti ad impianto dentale: interferenza

dell'immunità innata e specifica con il successo dell'impianto. **2009/12. Progetto EDA. Ministero Difesa**, Sviluppo di biotecnologie che permettano la caratterizzazione degli agenti B. **2009/11. PRIN, MIUR**: Inibizione del cross-talk tra le vie di Hedgehog, ErbB2 e NF-kB nei tumori della mammella attraverso la terapia combinata basata su un inibitore di Hh e un vaccino anti-ErbB2. **2013/14. Progetto GREAM. Ministero Difesa**. Genotossicità delle radiazioni elettromagnetiche nelle applicazioni militari". **2014. Progetto APTAMERI**. **Ministero Difesa**. "Sensore per la determinazione di spore di antrace. **2017. Progetto GUNA SPA**. Analisi degli effetti del Galium-Heel and Gunamatrix sui fibroblasti umani. **2018**. **Progetto GREAM2. Ministero Difesa**. Genotossicità delle radiazioni elettromagnetiche nelle applicazioni militari. **2018/19. Progetto "Mission Sustainability". RSU "Tor Vergata"**. Utilizzo di un coktail di specifici farmaci per aumentare la risposta immunitaria e l'attività antitumorale di un vaccino anti-ErbB2/neu nei tumori testa collo.
1998. Premio **"Glaxo Wellcome Oncology Clinical Research Scholar 1998"**. AACR **1999**. Premio istituito dal Presidente della **Società Italiana di Patologia e Medicina Orale**.

Attività di ricerca: 15 pubblicazioni selezionate

1) Masuelli L,…., **Bei R**, Cirone M. Chloroquine supplementation increases the cytotoxic effect of curcumin against Her2/neu overexpressing breast cancer cells in vitro and in vivo in nude mice while counteracts it in immune competent mice. **OncoImmunology**, 2017,6(11):e1356151.
2) Masuelli L,…., and **Bei R**. In Vitro and In Vivo Anti-tumoral Effects of the Flavonoid Apigenin in Malignant Mesothelioma. **Front Pharmacol.** 2017,8:373.
3) Masuelli L,…., and **Bei R.** Curcumin blocks autophagy and activates apoptosis of malignant mesothelioma cell lines and increases the survival of mice intraperitoneally transplanted with a malignant mesothelioma cell line. **Oncotarget.** 2017,8:34405.
4) Benvenuto M,…., and **Bei R**. *In vitro* and *in vivo* inhibition of breast cancer cell growth by targeting the Hedgehog/GLI pathway with SMO (GDC-0449) or GLI (GANT-61) inhibitors. **Oncotarget** 2016,7:9250.
5) Fantini M,…., and **Bei R**. In Vitro and In Vivo Antitumoral Effects of Combination of Polyphenols or Polyphenol/s and Anticancer Drugs: Perspectives on Cancer Treatment. **Int J Mol Sci.** 2015,16:9236.
6) Benvenuto M,…., and **Bei R**. Natural humoral immune response to ribosomal P0 protein in colorectal cancer patients**. J Transl Med** 2015,13:101.
7) Masuelli L,…, and **Bei R**. Resveratrol potentiates the in vitro and in vivo anti-tumoral effects of curcumin in head and neck carcinomas. **Oncotarget.** 2014,5(21):10745.
8) Masuelli L,…, and **Bei R**. Intratumoral delivery of recombinant vaccinia virus encoding for ErbB2/Neu inhibits the growth of salivary gland carcinoma cells. **J Transl Med**. 2014,12:122.
9) Izzi V,…, and **Bei R**. Immunity and malignant mesothelioma: from mesothelial cell damage to tumor development and immune response-based therapies. **Cancer Lett**. 2012,322(1):18.
10) Masuelli L,…, and **Bei R**. Caveolin-1 overexpression is associated with simultaneous abnormal expression of the E-cadherin/α-β catenins complex and multiple ErbB receptors and with lymph nodes metastasis in head and neck squamous cell carcinomas. **J Cell Physiol**. 2012,227(9):3344.
11) Bei R, Mizejewski GJ. Alpha fetoprotein is more than a hepatocellular cancer biomarker: from spontaneous immune response in cancer patients to the development of an AFP-based cancer vaccine. **Curr Mol Med**. 2011,11(7):564.
12) Masuelli L,.., and **Bei R**. Local delivery of recombinant vaccinia virus encoding for neu counteracts growth of mammary tumors more efficiently than systemic delivery in neu transgenic mice. **Cancer Immunol Immunother**. 2010,59(8):1247.
13) Bei R,…, Muraro R. Frequent overexpression of multiple ErbB receptors by head and neck squamous cell carcinoma contrasts with rare antibody immunity in patients. **J Pathol.** 2004,204(3):317.
14) Bei R, …., Muraro R. Cryptic epitopes on alpha-fetoprotein induce spontaneous immune responses in hepatocellular carcinoma, liver cirrhosis, and chronic hepatitis patients. **Cancer Res**. 1999,59(21):5471.
15) Bei R, …, Muraro R. Immune responses to all ErbB family receptors detectable in serum of cancer patients. **Oncogene**. 1999,18(6):1267.

Università degli Studi di Roma "Tor Vergata"

ACADEMIC AND SCIENTIFIC CURRICULUM OF PROF. ROBERTO BEI

PERSONAL DATA
Name and Surname: Roberto Bei
Place and date of birth: 22/05/1964

***CURRENT POSITION*:** Full Professor of General Pathology
Department: Clinical Sciences and Translational Medicine
Address: Via Montpellier 1
Phone number: +390672596522
E-mail: bei@med.uniroma2.it
Consulting hours: all days by schedule
Italian Ministry of Education Academic-Scientific sector: MED04

SCIENTIFIC AND DIDACTIC ACTIVITY

Education and academic positions:
1989. M.D. Degree in Medicine (110/110 cum Laude), University of Rome "La Sapienza". **1989**. Qualification as Medical Doctor, University of Rome "La Sapienza", Registration n. 41370 (Order of Medical Doctor of Rome). **1991-1992.** Army Medical Doctor Officer. **1993.** Specialist in Medical Oncology (70/70 cum Laude), Università "La Sapienza". **1998.** Ph.D University "La Sapienza". **2002**. Specialist in Clinical Pathology (70/70 cum Laude), University of Rome "La Sapienza".
2001-2006. Researcher of General Pathology, Faculty of Medicine, University of Rome "Tor Vergata".
2006-2017. Associate Professor of General Pathology, University of Rome "Tor Vergata".
2017-today. Full Professor of General Pathology, University of Rome "Tor Vergata".
2017-today. President of the Master Degree in Medical Biotechnology, University of Rome "Tor Vergata".

Professional and didactic activities in Italian and Foreign Institutions:
1989-1990. CIFA- CIVA Fellowship. **1992-1996**. Fogarty Fellowship, EOS, LTIB, NCI, NIH, Maryland (Director Dr. J. Schlom).
Teaching activity of General Pathology for School of Medicine (Italian and English Courses), Pharmacy (English), Human Nutrition, Dietician, Medical Biotechnology, Biomedical laboratory Technicians, Prevention of Environment and Work Places Technicians, for Residency in Endocrinology, Oncology, Orthopedics. Radiotherapy, Pathology (University"Tor Vergata"), for School of Human Nutrition and Prev and Adapted Motory Activity Sciences (University San Raffaele) and School of Medicine (Universiteti Katolik "Zoja e Keshillit te Mire", Tirana).
Editorial Board: Rec Pat Infl Aller Drug Discov (2009-today), J Liver (2011-today), O J Immunol (2011-today), MOJ Immunol (2014-today), Front Biosc (2016-today), Anti-Cancer Ag Med Chem (2015-today), Int J Oncol (2017-today), Front Pharmacol e Front Oncol (Rev Editor) (2017-today).

Awards and funding:
2007. Scientific Research Grant from University "Tor Vergata". Immune response to ribosomal P proteins in head and neck cancer patients. **2007/08. Supplementary grant from University "Tor Vergata"**. Immune responses to extracellular matrix components, heat shock and ribosomal P proteins in subjects loaded with a dental implant: interference of innate and adoptive immunity for a successful implant. **2008. Scientific Research Grant from University "Tor Vergata".** Effect of resveratrol and diallil disulfide on cancer cells of mesenchymal origin. **2007/08. PRIN, MIUR:** Immune responses to

extracellular matrix components (ECM), heat shock (HSPs) and ribosomal P proteins in subjects loaded with a dental implant: interference of innate and adoptive immunity for a successful implant". **2009/12. EDA B0060 Project. Department of Defence.** Development of Biotechnology for B agents characterization. **2009/11. PRIN, MIUR**. Inhibition of cross-talk between Hedgehog, ErbB2 and NF-kB signaling in breast cancer by combined treatments based on an Hh inhibitor and an anti-ErbB2 vaccine. **2013. GREAM Project, Department of Defence**. Genotoxicity of electromagnetic radiation in military applications. **2014. APTAMERS Project, Department of Defence**. Sensor for the determination of anthrax spores. **2017. GUNA spa Project.** "Analysis of the effects of Galium-Heel and Gunamatrix on Human Skin Fibroblasts. **2018. GREAM2 project. Department of Defence**. Genotoxicity of electromagnetic radiation in military applications. **2018**. **Scientific research of University "Tor Vergata"-MISSION SUSTAINABILITY**. "The use of specific drug cocktails to boost the immune response and antitumor activity of the ErbB2/neu anti-cancer vaccine in head and neck cancer (HNC).
1998. Glaxo Wellcome Oncology Clinical Research Scholar 1998. AACR **1999**. Award from Italian Society of Pathology and Oral Medicine

Research activity: 15 most significant publications

1) Masuelli L,.…, **Bei R**, Cirone M. Chloroquine supplementation increases the cytotoxic effect of curcumin against Her2/neu overexpressing breast cancer cells in vitro and in vivo in nude mice while counteracts it in immune competent mice. **OncoImmunology**, 2017,6(11):e1356151.
2) Masuelli L,…., and **Bei R**. In Vitro and In Vivo Anti-tumoral Effects of the Flavonoid Apigenin in Malignant Mesothelioma. **Front Pharmacol.** 2017,8:373.
3) Masuelli L,.…, and **Bei R.** Curcumin blocks autophagy and activates apoptosis of malignant mesothelioma cell lines and increases the survival of mice intraperitoneally transplanted with a malignant mesothelioma cell line. **Oncotarget.** 2017,8:34405.
4) Benvenuto M,…., and **Bei R**. *In vitro* and *in vivo* inhibition of breast cancer cell growth by targeting the Hedgehog/GLI pathway with SMO (GDC-0449) or GLI (GANT-61) inhibitors. **Oncotarget** 2016,7:9250.
5) Fantini M,.…, and **Bei-R**. In Vitro and In Vivo Antitumoral Effects of Combination of Polyphenols or Polyphenol/s and Anticancer Drugs: Perspectives on Cancer Treatment. **Int J Mol Sci.** 2015,16:9236.
6) Benvenuto M,…., and **Bei R**. Natural humoral immune response to ribosomal P0 protein in colorectal cancer patients**. J Transl Med** 2015,13:101.
7) Masuelli L,…, and **Bei R**. Resveratrol potentiates the in vitro and in vivo anti-tumoral effects of curcumin in head and neck carcinomas. **Oncotarget.** 2014,5(21):10745.
8) Masuelli L,…, and **Bei R**. Intratumoral delivery of recombinant vaccinia virus encoding for ErbB2/Neu inhibits the growth of salivary gland carcinoma cells. **J Transl Med**. 2014,12:122.
9) Izzi V,…, and **Bei R**. Immunity and malignant mesothelioma: from mesothelial cell damage to tumor development and immune response-based therapies. **Cancer Lett**. 2012,322(1):18.
10) Masuelli L,…, and **Bei R**. Caveolin-1 overexpression is associated with simultaneous abnormal expression of the E-cadherin/α-β catenins complex and multiple ErbB receptors and with lymph nodes metastasis in head and neck squamous cell carcinomas. **J Cell Physiol**. 2012,227(9):3344.
11) Bei R, Mizejewski GJ. Alpha fetoprotein is more than a hepatocellular cancer biomarker: from spontaneous immune response in cancer patients to the development of an AFP-based cancer vaccine. **Curr Mol Med**. 2011,11(7):564.
12) Masuelli L,.., and **Bei R**. Local delivery of recombinant vaccinia virus encoding for neu counteracts growth of mammary tumors more efficiently than systemic delivery in neu transgenic mice. **Cancer Immunol Immunother**. 2010,59(8):1247.
13) Bei R,…, Muraro R. Frequent overexpression of multiple ErbB receptors by head and neck squamous cell carcinoma contrasts with rare antibody immunity in patients. **J Pathol.** 2004,204(3):317.
14) Bei R, …., Muraro R. Cryptic epitopes on alpha-fetoprotein induce spontaneous immune responses in hepatocellular carcinoma, liver cirrhosis, and chronic hepatitis patients. **Cancer Res**. 1999,59(21):5471.
15) Bei R, …, Muraro R. Immune responses to all ErbB family receptors detectable in serum of cancer patients. **Oncogene**. 1999,18(6):1267.