



## PERSONAL INFORMATION

**Luca Bertero**

 Pathology Unit, Dept. Medical Sciences  
University of Turin  
Via Santena 7  
10126 Torino  
Italy

 +39 011/6335466

 [luca.bertero@unito.it](mailto:luca.bertero@unito.it)

Sex M | Date of birth 24/10/1986 | Nationality Italian

## WORK EXPERIENCE

February 2012-Ongoing

**Registration with the Province of Turin Medical Association**

Registration number: 22285. Registration date: 27/02/2012.

Turin, Italy

## EDUCATION AND TRAINING

October 2017-Ongoing

**PhD in Biomedical Sciences and Oncology (XXXIII Cycle) – Pathology Division, Department of Medical Sciences, University of Turin and “Città della Salute e della Scienza” University Hospital**

Tutor: Prof. Paola Cassoni

Turin, Italy

April 2018-October 2018

**Visiting physician - Neuropathology Department/German Cancer Research Center, University of Heidelberg**

Director: Prof. Andreas von Deimling

Heidelberg, Germany

December 2014-December 2018

**Anatomic Pathology residency – University of Turin**

Final mark: 70/70 cum laude

Thesis: Atypical and anaplastic meningiomas: creation and validation of a histopathological prognostic score (School director: Prof. Achille Pich, Thesis co-supervisor: Prof. Paola Cassoni).

Turin, Italy

November 2013-July 2014

**Research trainee - Project “Evaluation of efficacy of chemotherapy as upfront treatment for gliomatosis cerebri” – Neuro-oncology Division, Department of Neurosciences, University of Turin**

Supervisor: Prof. Riccardo Soffietti

Turin, Italy

- March 2013 **Observership – Neuro-Oncology Department, The University of Texas – MD Anderson Cancer Center**  
 Supervisor: Dr. John De Groot  
 Houston, Texas, USA
- November 2012-July 2013 **Research trainee - Project “New diagnostic and therapeutic modalities in low grade gliomas treatment” – Neuro-oncology Division, Department of Neurosciences, University of Turin**  
 Supervisor: Prof. Riccardo Soffietti  
 Turin, Italy
- 2011-2012 **Italian national licensure examination to practice medicine, University of Turin**  
 2011 second session  
 Turin, Italy
- 2005-2011 **Medicine and Surgery degree – University of Turin**  
 Final mark: 110/110 cum laude  
 Thesis (which received “Dignità di stampa”): “Multicentric, prospective phase II study of dose-dense chemotherapy in low grade oligodendroglial tumors: response and molecular factors of predictive value”. (Thesis supervisor: Prof. Riccardo Soffietti)  
 Turin, Italy
- 2010 **Summer School on Clinical Neurology and Neurosurgery, University of Groningen**  
 Groningen, Netherlands

## SCIENTIFIC ACTIVITY

### Articles (indexed in PubMed)

- Osella-Abate S, **Bertero L**, Senetta R, Mariani S, Lisa F, Coppola V, Metovic J, Pasini B, Puig S S, Fierro MT, Manrique-Silva E, Kumar R, Nagore E, Cassoni P, Ribero S. TERT Promoter Mutations are Associated with Visceral Spreading in Melanoma of the Trunk. **Cancers (Basel)**. 2019 Mar 30;11(4). pii: E452. doi: 10.3390/cancers11040452.
- Cofano F, Marengo N, Pecoraro F, Penner F, **Bertero L**, Zenga F. Spinal epidural capillary hemangioma: case report and review of the literature. **Br J Neurosurg**. 2019 4:1-4. doi: 10.1080/02688697.2018.1562034
- Hou Y, Pinheiro J, Sahm F, Reuss DE, Schrimpf D, Stichel D, Casalini B, Koelsche C, Sievers P, Wefers AK, Reinhardt A, Ebrahimi A, Francisco F, Pusch S, Paulus W, Prinz M, Hartmann C, Plate K, Reifenberger G, Schüller U, Scheie D, de Stricker K, Hench J, Pollo B, Brandner S, Unterberg A, Meier J, Pfister S, Jones D, Korshunov A, Wick W, Capper D, Blümcke I, von Deimling A, **Bertero L**. Papillary glioneuronal tumor (PGNT) exhibits a characteristic methylation profile and fusions involving *PRKCA*. **Acta Neuropathol**. 2019 doi: 10.1007/s00401-019-01969-2
- **Bertero L**, Dalla Dea G, Osella-Abate S, Botta C, Castellano I, Morra I, Pollo B, Calatozzolo C, Patriarca S, Mantovani C, Rudà R, Tardivo V, Zenga F, Garbossa D, Papotti M, Soffietti R, Ricardi U, Cassoni P. Prognostic Characterization of Higher-Grade Meningiomas: A Histopathological Score to Predict Progression and Outcome. **J Neuropathol Exp Neurol**. 2019 Jan 25. doi: 10.1093/jnen/nly127.
- **Bertero L**, Joseph SB, Trunfio M, Alice T, Catera S, Imperiale D, Cassoni P, Kincer LP,

- Pirriatore V, Ghisetti V, Amasio E, Zanusso G, Bonora S, Di Perri G, Calcagno A. HIV-1 detection in the olfactory mucosa of HIV-1 infected participants. **AIDS**. 2019 Jan 2. doi: 10.1097/QAD.0000000000002102.
- Osella-Abate S, Mereu E, Pellegrino E, Bergaggio E, Ribero S, **Bertero L**, Lisa F, Fierro MT, Giulio Papotti M, Piva R. ALK expression favorably impacts the prognosis of *NRAS*-mutated metastatic melanomas. **Oncol Lett**. 2018 Dec;16(6):7091-7096. doi: 10.3892/ol.2018.9560.
  - Ribero S, Galli F, Osella-Abate S, **Bertero L**, Cattaneo L, Merelli B, Tondini C, Ghilardi L, De Giorgi V, Occeci M, Quaglino P, Cassoni P, Palmieri G, Massi D, Mandala M; Italian Melanoma Intergroup. Prognostic impact of regression in patients with primary cutaneous melanoma >1 mm in thickness. **J Am Acad Dermatol**. 2019 Jan;80(1):99-105.e5. doi: 10.1016/j.jaad.2018.06.054.
  - Schiffer D, Mellai M, Boldorini R, Bisogno I, Grifoni S, Corona C, **Bertero L**, Cassoni P, Casalone C, Annovazzi L. The Significance of Chondroitin Sulfate Proteoglycan 4 (CSPG4) in Human Gliomas. **Int J Mol Sci**. 2018 Sep 12;19(9). pii: E2724. doi: 10.3390/ijms19092724.
  - **Bertero L**, Anfossi V, Osella-Abate S, Disanto MG, Mantovani C, Zenga F, Rudà R, Garbossa D, Soffiatti R, Ricardi U, Papotti M, Cassoni P. Pathological prognostic markers in central nervous system solitary fibrous tumour/hemangiopericytoma: Evidence from a small series. **PLoS One**. 2018 Sep 5;13(9):e0203570. doi: 10.1371/journal.pone.0203570. eCollection 2018.
  - Priego N, Zhu L, Monteiro C, Mulders M, Wasilewski D, Bindeman W, Doglio L, Martínez L, Martínez-Saez E, Cajal SRY, Megías D, Hernández-Encinas E, Blanco-Aparicio C, Martínez L, Zarzuela E, Muñoz J, Fustero-Torres C, Pineiro E, Hernández-Laín A, **Bertero L**, Poli V, Sánchez-Martínez M, Menendez JA, Soffiatti R, Bosch-Barrera J, Valiente M. STAT3 labels a subpopulation of reactive astrocytes required for brain metastasis. **Nat Med**. 2018 Jul;24(7):1024-1035. doi: 10.1038/s41591-018-0044-4.
  - Koelsche C, Mynarek M, Schimpf D, **Bertero L**, Serrano J, Sahn F, Reuss DE, Hou Y, Baumhoer D, Vokuhl C, Flucke U, Petersen I, Brück W, Rutkowski S, Zambrano SC, Garcia Leon JL, Diaz Coronado RY, Gessler M, Tirado OM, Mora J, Alonso J, Garcia Del Muro X, Esteller M, Sturm D, Ecker J, Milde T, Pfister SM, Korshunov A, Snuderl M, Mechttersheimer G, Schüller U, Jones DTW, von Deimling A. Primary intracranial spindle cell sarcoma with rhabdomyosarcoma-like features share a highly distinct methylation profile and DICER1 mutations. **Acta Neuropathol**. 2018 Aug;136(2):327-337. doi: 10.1007/s00401-018-1871-6.
  - Metovic J, **Bertero L**, Musuraca C, Veneziano F, Annaratone L, Mariani S, Cassoni P, Bussolati G, Papotti M. Safe transportation of formalin-fixed liquid-free pathology specimens. **Virchows Arch**. 2018 Jul;473(1):105-113. doi: 10.1007/s00428-018-2383-4.
  - Monticelli M, Zeppa P, Zenga F, Altieri R, Mammi M, **Bertero L**, Castellano I, Cassoni P, Melcarne A, La Rocca G, Sabatino G, Ducati A, Garbossa D. The post-surgical era of GBM: How molecular biology has impacted on our clinical management. A review. **Clin Neurol Neurosurg**. 2018 Jul;170:120-126. doi: 10.1016/j.clineuro.2018.05.015.
  - Mariani S, **Bertero L**, Coppola V, Saracco G, Arezzo A, Francia Di Celle P, Metovic J, Marchiò C, Cassoni P. Awareness of mutational artefacts in suboptimal DNA samples: possible risk for therapeutic choices. **Expert Rev Mol Diagn**. 2018 May;18(5):467-475. doi: 10.1080/14737159.2018.1468254.
  - Tardivo V, Vincitorio F, Monticelli M, **Bertero L**, Zenga F, Ducati A, Cassoni P, Garbossa D. Double cystic brain metastasis in a patient with stable pancreatic intraductal papillary mucinous neoplasm. **Br J Neurosurg**. 2018 Mar 20:1-5. doi: 10.1080/02688697.2018.1451824.
  - Pellerino A, **Bertero L**, Rudà R, Soffiatti R. Neoplastic meningitis in solid tumors: from diagnosis to personalized treatments. **Ther Adv Neurol Disord**. 2018 Mar 7;11:1756286418759618. doi: 10.1177/1756286418759618.
  - Radin M, **Bertero L**, Roccatello D, Sciascia S. Severe Multi-Organ Failure and Hypereosinophilia: When to Call It "Idiopathic"? **J Investig Med High Impact Case Rep**.

2018 Feb 15;6:2324709618758347. doi: 10.1177/2324709618758347.

- Rangel N, Rondon-Lagos M, Annaratone L, Osella-Abate S, Metovic J, Mano MP, **Bertero L**, Cassoni P, Sapino A, Castellano I. The role of the AR/ER ratio in ER-positive breast cancer patients. **Endocr Relat Cancer**. 2018 Mar;25(3):163-172. doi: 10.1530/ERC-17-0417.
- Rrapaj E, Trisolini E, **Bertero L**, Salvo M, Indelicato R, Andorno S, Garcia-Manteiga JM, Rena O, Boldorini RL. Expression analysis of HMGB1 in histological samples of malignant pleural mesothelioma. **Histopathology**. 2018 May;72(6):1039-1050. doi: 10.1111/his.13470.
- **Bertero L**, Zenga F, Maletta F, Senetta R, Cassoni P. A 68-Year-Old Woman with A Left Orbital and Temporal Mass. **Brain Pathol**. 2018 Jan;28(1):133-134. doi: 10.1111/bpa.12580.
- Rossi G, **Bertero L**, Marchiò C, Papotti M. Molecular alterations of neuroendocrine tumours of the lung. **Histopathology**. 2018 Jan;72(1):142-152. doi: 10.1111/his.13394.
- **Bertero L**, Massa F, Metovic J, Zanetti R, Castellano I, Ricardi U, Papotti M, Cassoni P. Eighth Edition of the UICC Classification of Malignant Tumours: an overview of the changes in the pathological TNM classification criteria-What has changed and why? **Virchows Arch**. 2018 Apr;472(4):519-531. doi: 10.1007/s00428-017-2276-y.
- Conti L, Vatrano S, **Bertero L**, Masu L, Pacchioni D, Daniele L, De Rosa G, Cassoni P, Volante M, Papotti M. Mitochondrial DNA "common deletion" in post-fine needle aspiration infarcted oncocyctic thyroid tumors. **Hum Pathol**. 2017 Nov;69:23-30. doi: 10.1016/j.humpath.2017.09.004.
- Marchiò C, Gatti G, Massa F, **Bertero L**, Filosso P, Pelosi G, Cassoni P, Volante M, Papotti M. Distinctive pathological and clinical features of lung carcinoids with high proliferation index. **Virchows Arch**. 2017 Dec;471(6):713-720. doi: 10.1007/s00428-017-2177-0.
- Mariani S, **Bertero L**, Osella-Abate S, Di Bello C, Francia di Celle P, Coppola V, Sapino A, Cassoni P, Marchiò C. Extreme assay sensitivity in molecular diagnostics further unveils intratumour heterogeneity in metastatic colorectal cancer as well as artifactual low-frequency mutations in the KRAS gene. **Br J Cancer**. 2017 Jul 25;117(3):358-366. doi: 10.1038/bjc.2017.170.
- Duregon E, Senetta R, **Bertero L**, Bussolati B, Annaratone L, Pittaro A, Papotti M, Marchiò C, Cassoni P. Caveolin 1 expression favors tumor growth and is associated with poor survival in primary lung adenocarcinomas. **Tumour Biol**. 2017 Feb;39(2):1010428317694311. doi: 10.1177/1010428317694311.
- Marchiò C, Mariani S, **Bertero L**, Di Bello C, Francia Di Celle P, Papotti M, Rudà R, Soffiatti R, Cassoni P. Liquoral liquid biopsy in neoplastic meningitis enables molecular diagnosis and mutation tracking: a proof of concept. **Neuro Oncol**. 2017 Mar 1;19(3):451-453. doi: 10.1093/neuonc/now244.
- Pellerino A, Rudà R, **Bertero L**, Magistrello M, Franchino F, Cassoni P, Pasqualetti F, Pinessi L, Giangaspero F, Soffiatti R. Successful use of bevacizumab in an adult primary diffuse leptomeningeal glioneuronal tumor. **J Neurosurg Sci**. 2018 Apr;62(2):229-232. doi: 10.23736/S0390-5616.16.03804-2.
- Duregon E, **Bertero L**, Pittaro A, Soffiatti R, Rudà R, Trevisan M, Papotti M, Ventura L, Senetta R, Cassoni P. Ki-67 proliferation index but not mitotic thresholds integrates the molecular prognostic stratification of lower grade gliomas. **Oncotarget**. 2016;7(16):21190-21198. doi: 10.18632/oncotarget.8498.
- Senetta R, Mellai M, Manini C, Castellano I, **Bertero L**, Pittaro A, Schiffer D, Boldorini R, Cassoni P. Mesenchymal/radioresistant traits in granular astrocytomas: evidence from a combined clinical and molecular approach. **Histopathology**. 2016;69(2):329-337. doi: 10.1111/his.12944.
- Castellano A, Donativi M, Rudà R, De Nunzio G, Riva M, Iadanza A, **Bertero L**, Rucco M, Bello L, Soffiatti R, Falini A. Evaluation of low-grade glioma structural changes after chemotherapy using DTI-based histogram analysis and functional diffusion maps. **Eur**

**Radiol.** 2016;26(5):1263-1273.

- Trevisan E, **Bertero L**, Magistrello M, Rudà R, Soffiatti R Is there a role for bevacizumab in non-glioma tumors? **Curr Drug Targets.** 2015;16(7):684-688.
- **Bertero L**, Cassoni P, Rudà R. Nocardia abscesses mimicking tumor progression in gliomatosis cerebri responding to temozolomide. **J Neurooncol.** 2015;121(1):225-227. doi: 10.1007/s11060-014-1609-9.
- Soffiatti R, **Bertero L**, Pinessi L, Rudà R. Pharmacologic therapies for malignant glioma: a guide for clinicians. **CNS Drugs.** 2014;18(12):1127-1137. doi: 10.1007/s40263-014-0215-x.
- Trevisan R, **Bertero L**, Bosa C, Magistrello M, Pellerino A, Rudà R, Soffiatti R. Antiangiogenic therapy of brain tumors: the role of bevacizumab. **Neurol Sci.** 2014;35(4):507-514. doi: 10.1007/s40263-014-0215-x.
- Rudà R, **Bertero L**, Sanson M. Gliomatosis cerebri: a review. **Curr Treat Options Neurol.** 2014;16(2):273.
- Soffiatti R, Trevisan E, **Bertero L**, Cassoni P, Morra I, Fabrizzi MG, Pasqualetti F, Lolli I, Castiglione A, Ciccone G, Rudà R. Bevacizumab and fotemustine for recurrent glioblastoma: a phase II study of AINO (Italian Association of Neuro-Oncology). **J Neurooncol.** 2014;116(3):533-541.
- Simonetti G, Trevisan E, Silvani A, Gaviani P, Botturi A, Lamperti E, Beecher D, **Bertero L**, Bosa C, Salmaggi A. Safety of bevacizumab in patients with malignant gliomas: a systematic review. **Neurol Sci.** 2014;35(1):83-89.
- Rudà R, Magliola U, **Bertero L**, Trevisan E, Bosa C, Mantovani C, Ricardi U, Castiglione A, Monagheddu C, Soffiatti R. Seizure control following radiotherapy in patients with diffuse gliomas: a retrospective study. **Neuro Oncol.** 2013;15(12):1739-1749.
- Soffiatti R, Trevisan E, **Bertero L**, Bosa C, Rudà R. Anti-angiogenic approaches to malignant gliomas. **Curr Cancer Drug Targets.** 2012 Mar;12(3):279-288.
- Cavanna AE, Cavanna S, **Bertero L**, Robertson MM. Depression in women with epilepsy: clinical and neurobiological aspects. **Funct Neurol.** 2009 Apr-Jun;24(2):83-7.
- Cavanna AE, **Bertero L**, Cavanna S, Servo S, Strigaro G, Monaco F. Persistent akinetic mutism after bilateral paramedian thalamic infarction. **J Neuropsychiatry Clin Neurosci.** 2009 Summer;21(3):351.

#### Book chapters

- **Bertero L**, Cassoni P. Patologia del sistema nervoso centrale – Tumori. In: D'Amati G and Della Rocca C (eds.), Gallo d'Amati. Anatomia Patologica. La sistematica. Milano: Edra; 2018.
- Soffiatti R, Rudà R, **Bertero L**, Trevisan E, Bosa C, Morra I. Neoplasie del sistema nervoso centrale. In: R. Labianca and S. Cascinu (eds.), **La Medicina Oncologica. Diagnosi, terapia e gestione clinica.** Milano: Edra; 2013.
- Rudà R, **Bertero L**, Soffiatti R. Natural history and spontaneous prognostic factors. In: Duffau H (ed.), **Diffuse low-grade gliomas in adults.** London: Springer; 2013.
- Soffiatti R, Bosa C, **Bertero L**, Rudà R. Whole brain radiotherapy: impact of the EORTC trial for treatment decisions. In Boiron M and Marty M (eds.), **Eurocancer 2011.** Montrouge: John Libbey Eurotext; 2011.

#### Invited relations

- Biologia molecolare dei sarcomi dei tessuti molli. Stage sui sarcomi dei tessuti molli. Turin, Italy, 5<sup>th</sup>-7<sup>th</sup> February 2019.
- Patologia metastatica cerebrale – Il ruolo della biopsia liquida oggi. Highlights in Neuro-oncologia.

Turin, Italy, 28<sup>th</sup>-29<sup>th</sup> September 2018.

- Intra-axial primary brain tumors: high grade gliomas and lower grade gliomas. – Neuropathology: Current WHO classification (2016). ESO Masterclass in Neuro-oncology: Multidisciplinary management of adult brain tumour. Milan, Italy, 20<sup>th</sup>-22 September 2018.
- The potential role of liquid biopsy. Swiss-Italian Neuro-Oncology Meeting: Advances and controversies in Neuro-Oncology. Turin, Italy, 29<sup>th</sup>-30<sup>th</sup> September 2017.
- Pathology and molecular biology: The way to improved treatment selection and the modern strategy in trial design. ESO-EANO Masterclass in Neuro-Oncology: Challenges in Radiotherapy for Patients with Gliomas. Lugano, Switzerland, 15<sup>th</sup>-17<sup>th</sup> September 2016.
- Gliomatosis cerebri. Swiss Italian Neuro Oncology Meeting 2013. Lugano, Switzerland, 5<sup>th</sup>-7<sup>th</sup> September 2013.

#### Awards

- Premio Optime 2012 – Award of Industrial Union of Turin for study merit.
- Travel Grant for X EANO Meeting (European Association of NeuroOncology). Marseille, France (6-9 September 2012).

#### Peer reviewing activity

- Reviewer for Journal of Neuro-Oncology, Journal Neuropathology and Experimental Neurology, Virchows Archiv, Cellular Oncology, Cellular Physiology and Biochemistry, European Journal of Pharmacology, BioMed Research International, The International Journal of Biological Markers.

#### Grants/Participations to research projects

- 2018: Oncology Network of Piedmont and Aosta Valley – Project: “Application of DNA methylation-based classification for diagnosis of central nervous system tumors, of sarcomas and of other rare tumors”. – Role: Principal investigator and co-project head – Amount: 98.000€
- 2018: EU Horizon 2020 Call: H2020-ICT-2018-2 Topic: ICT-11-2018-2019 – Project: “DeepHealth: Deep-Learning and HPC to Boost Biomedical Applications for Health”. – Role: Task leader (Work package 1 – Task 1.1: Use case definition and requirements) and key personnel of UNITO University of Turin unit. – Coordinating unit: everis Spain SLU. – Total grant amount: 12.774.854,26€, UNITO unit amount: 713.250€.
- 2017: Oncology Network of Piedmont and Aosta Valley – Project: “Prognostic and predictive role of immunotherapeutic markers in non-metastatic squamous carcinoma treated with radiochemotherapy”. – Role: Principal investigator – Project head: Prof. Paola Cassoni – Amount: 50.000€
- 2017: Call AIFA – Project: “Identification and validation of new circulating biomarkers for prediction of GH-secreting pituitary tumors sensitivity to first generation somatostatin analogs treatment and improvement of acromegaly management”. – Coordinating unit: Endocrinology unit, Department of Human Pathology in Adulthood and Childhood, University of Messina, Italy.

#### Clinical studies participations

- Sub-Investigator of project CERN LAB07-0497 “Ependymoma tissue correlates of clinical course and response to therapy”. Principal investigator: Prof. Riccardo Soffietti.
- Sub-Investigator of clinical trial GO27819: “A randomized, double-blind, placebo-controlled, multicenter phase II study evaluating the efficacy and safety of onartuzumab in combination with bevacizumab or onartuzumab monotherapy in patients with recurrent glioblastoma”. Principal investigator: Prof. Riccardo Soffietti.
- Sub-Investigator of clinical trial CLDE225C2301: “A phase III, multi-center, open-label, randomized, controlled study of the efficacy and safety of oral LDE225 versus temozolomide in patients with Hh-pathway activated relapsed medulloblastoma”. Principal investigator: Prof.

Riccardo Soffietti.

- Sub-Investigator of clinical trial CDX110-04: "An international, randomized, double-blind, controlled study of rindopepimut/GM-CSF with adjuvant temozolomide in patients with newly diagnosed, surgically resected, EGFRvIII-positive glioblastoma (The "ACT IV" Study)". Principal investigator: Prof. Riccardo Soffietti.
- Sub-Investigator of clinical trial MO28347: "A double-blind, placebo-controlled, randomized, phase IIIb trial evaluating the efficacy and safety of standard of care (SOC) +/- continuous bevacizumab treatment following progression of disease (PD) in patients with glioblastoma (GBM) after first (1st)-line treatment with radiotherapy, temozolomide and bevacizumab). Principal investigator: Prof. Riccardo Soffietti.

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	Proficient	Proficient	Proficient	Proficient	Proficient
First Certificate in English (Grade A) – Levels B2					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
[Common European Framework of Reference for Languages](#)

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient	Proficient	Proficient	Proficient	Proficient

Levels: Basic user - Independent user - Proficient user  
[Digital competences - Self-assessment grid](#)

ECDL Core Full

- Thorough good command of office suite (word processor, spread sheet, presentation software)

Driving licence A, B