

European Curriculum Vitae

Personal information

Surname(s) / First name(s) Dal Molin Matteo
Address(es)
Telephone(s)
E-mail matteo.dalmolin01@universitadipavia.it
Nationality Italian
Date of Birth 16/01/1978
Gender Male

Occupational field Cancer Research

Work experience

Dates November 2016 - Present
Occupation or position held Biologist at IEO (European Institute of Oncology – Milan – Italy)
Clinical Genomics Division

Main activities and responsibilities I work in the diagnostic laboratory of next generation sequencing. NGS is applied to structural genomics (genomic sequencing of individual human genomes). I analyze sequencing data of human genes correlated to breast, colon, ovary, prostate, melanoma cancer and to specific hereditary syndromes searching for germline point mutations. The test is performed on DNA extracted from peripheral blood samples by the preparation of specific libraries (Illumina, Sophia Genetics, Devyser BRCA). Genes are also checked for big duplications/deletions by MLPA (Multiplex ligation-dependent probe amplification) technique. Any mutation is confirmed by Sanger.

Name and address of employer IEO Clinical Genomics Division at IEO Hospital, Via Ripamonti 435, 20141 Milano
Type of business or sector Diagnostic and research
Dates January 2006 – October 2016
Occupation or position held Biologist at IEO (European Institute of Oncology – Milan - Italy) Cell Biology Unit

Main activities and responsibilities | I provide training, assistance and technical support in cell culture for IEO experimental oncology department. I maintain in culture every type of immortalized cancer and normal cell lines, I prepare subconfluent and transfection cell plates, I amplify and freeze cell stocks, I perform tests of transfection with different methods (calcium phosphate, lipofectamine, fugene, electroporation) to value the capacity of the cells to integrate exogenous DNA. I infect cells with retro/lentivirus and I select them with antibiotics. I generate clonal lines. I prepare culture media, reagents and solutions to transfect, infect, select cells and to improve manipulation of the same cells. I test new products, sera and media on the cells through growth-curves or transfection tests. I titrate lentivirus and retrovirus by qPCR. I check continuous cell cultures for mycoplasma contaminations through PCR, myco-alert luminescence method and Hoechst staining. I have successful experience in cleaning mycoplasma positive cells through the BM-cyclin system.

Name and address of employer | IEO Cell Biology Unit at IEO Campus, Via Adamello, 16 – 20139 Milano

Type of business or sector | Education and research

Dates | May 2005 – December 2005

Occupation or position held | Biologist at the Stem Cell Research Institute – DiBit (department of biotechnologies) S.Raffaele Hospital, Milan - Italy

Main activities and responsibilities | I worked as a biologist in the laboratory of cell biology at the Stem Cell Research Institute – DiBit (department of biotechnologies) – S.Raffaele Hospital, Milan, under the supervision of Professor Angelo Vescovi. The aim of the project I was involved in is to characterize functionally neural stem cells isolated from different regions of mammalian brain at different stages during the development and the adult (embryo-adult). In this period I completed my thesis project.

Name and address of employer | Stem Cell Research Institute – DiBit (department of biotechnologies) – S.Raffaele Hospital, Via Olgettina 58 – 20132 Milano

Type of business or sector | Research

Training

Dates | September 2003 - April 2005

Occupation or position held | Thesis student

Main activities and responsibilities | I worked in the laboratory of Professor Angelo Vescovi at the Stem Cell Research Institute – DiBit – S.Raffaele Hospital for the preparation of my undergraduate thesis. My work demonstrates neural stem cells display functional heterogeneity in relation to their position in the brain and the age of the tissue and has brought to identify potentially the rightest stadia for cell therapy approach in neurodegenerative disease models. In this period I also worked on a research project regarding rats with Parkinson's disease in which neural stem cells were transplanted. I performed behavioural tests on animals, cuts of cerebral sections using cryostate and vibratome. I observed the presence of neural stem cells transplanted in the host tissue by immunocytochemistry analysis and the differentiation of neural stem cells in vivo. Moreover I collaborated to a project regarding transplantation of tumour neural stem cells derived from glioblastomas in scid mice : I used to cut cerebral sections by means of cryostate, perform immunohistochemistry and immunocytochemistry analysis to value the cancer stem cells and their invasiveness grade.

Name and address of employer	Stem Cell Research Institute – DiBit (department of biotechnologies) – S.Raffaele Hospital, Via Olgettina 58 – 20132 Milano
Type of business or sector	Research
Education	
Dates	September 2019 – Present
Title of qualification	Ph.D Student at University of Pavia (dottorato in Genetica, Biologia Molecolare e Cellulare – scientific supervisor : Prof. Ranzani G.Nadia and Dr.Loris Bernard)
Dates	October 1997 - April 2005
Title of qualification awarded	MSc in Biological Sciences (biomolecular specialization)
Principal subjects/occupational skills covered	Preparation and growth of cell primary cultures derived from different neurogenetic areas of mammalian brain, isolation of neural stem cells, propagation of neural stem cells, clonal analysis, preparation of clonal cell cultures, differentiation of neural stem cells, lentivirus infection of neural stem cells, cryopreservation of neurospheres. Animal handling, mice genotyping, DNA/RNA extraction, plasmid mini/maxi preparation, PCR, spectrophotometer use, agarose gel electrophoresis, removal and dissection of organs from mice, fixation and inclusion of organs for cryostate and vibratome cut, cryostate and vibratome use, histological stainings, immunocytochemistry . University courses of Pharmacology, Genetics and Molecular Biology provided me with experience in analysis and evaluation of drug effects in animals by concentration-effect curves; I prepared bacterial cultures and executed transformation of plasmids; I used the PCR technique.
Name and type of organisation providing education and training	Università Statale of Milano-Bicocca
Level in national or international classification	MSc
Dates	September 1992- September 1997
Title of qualification awarded	Diploma, Liceo Scientifico “P.Bottoni” five years of Liceo specializing in scientific studies in Milan
Dates	September 2000
Title of qualification awarded	Course of ECDL START computer science for the attainment of the Computer European Licence
Personal skills and competences	
Mother tongue	Italian
Other language(s)	English: C2 level (written and spoken)
Social skills and competences	University studies and the work experience in the research laboratories at the Department of Biotechnologies – S.Raffaele Hospital, Milan and at IEO Campus, Milan have allowed me to acquire a firm methodological approach in problem solving, I learned to work either in a group or by myself and experienced project-based working

Computer skills and competences	Office package; Windows 10; Mac OS; Adobe Photoshop
Hobbies	Skiing, climbing, ice-skating
Driving licence	Driving licence- Category B
Exams	Attestato di abilitazione all'esercizio della professione di Biologo – Esame di Stato
Dates	November 2016, Pavia
Publications	<p>Effects of developmental age, brain region, and time in culture on long-term proliferation and multipotency of neural stem cell populations</p> <p>A.Gritti¹; M.Dal Molin¹; Chiara Foroni¹, and Luca Bonfanti² 1. SCRI, Fond. San Raffaele, Milan, Italy 2. Vet. Morphophysiol., Univ. of Turin, Grugliasco, Italy The Journal of comparative neurology 2009 Nov 20;517(3):333-49. doi: 10.1002/cne.22153</p> <p>Is tumor testing efficiency for Lynch syndrome different in rectal and colon cancer?</p> <p>Marabelli M, Gandini S, Rafaniello PR, Calvello M, Tolva G, Feroce I, Lazzeroni M, Marino E, Dal Molin M, Trovato C, Guerrieri-Gonzaga A, Petz WL, Barberis M, Bertario L, Bonanni B. <i>Digestive and Liver Disease</i>. S1590-8658(20)30261-9 (2020)</p>
Poster Abstracts	<p>Functional properties of neural stem cells during postnatal modification of the forebrain SVZ in rodents</p> <p>A.Gritti¹; M.Dal Molin¹; A.Vescovi¹; L.Bonfanti² 1. SCRI, Fond. San Raffaele, Milan, Italy 2. Vet. Morphophysiol., Univ. of Turin, Grugliasco, Italy Program No. 24.19. 2005 Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience, 2005</p> <p>The role of immunohistochemistry (IHC) testing in Lynch Syndrome (LS) cancer spectrum</p> <p>M.Marabelli¹; I.Feroce¹; P.R.Rafaniello²; M.Calvello¹; M.Lazzeroni¹; C.Ferrari³; E. Belloni⁴; E.Marino⁴; M.Dal Molin⁴; C.Mauro⁴; L.Giacco⁴; L.Bernard⁴; A.Chiappa³; M.Barberis²; L.Bertario¹; B.Bonanni¹ 1. Division of Cancer Prevention & Genetics, European Institute of Oncology, Milan, IT 2. Division of Pathology, European Institute of Oncology, Milan, IT 3. Unit of Innovative Surgical Techniques, European Institute of Oncology, IT 4. Clinical Genomics Laboratory Unit, European Institute of Oncology, Milan, IT Catania, IT: XV Congresso AIFEG - XXI Congresso Nazionale SIGU, 2018</p>

Frequenza della mutazione c.5266dupC di BRCA1 in una casistica monoistituzionale

E.Marino¹; M.Lazzeroni²; E.Belloni¹; M.Marabelli²; M.Calvello²; L.Giacò¹; C.Mauro¹; **M.Dal Molin¹**; A.Guerrieri Gonzaga²; B.Bonanni²; L.Bernard¹

1. Clinical Genomics Laboratory Unit, European Institute of Oncology, Milan,IT
2. Division of Cancer Prevention & Genetics, European Institute of Oncology, Milan,IT
Catania, IT: XXI Congresso Nazionale SIGU,2018

Variants significance by network in breast cancer predisposition

L.Giacò¹; E.Belloni¹;E.Marino¹; C.Mauro¹; **M.Dal Molin¹**; I.Feroce²; L.Bernard¹ and P.G.Pelicci¹

1. Clinical Genomics Laboratory Unit, European Institute of Oncology, Milan,IT
2. Division of Cancer Prevention & Genetics, European Institute of Oncology, Milan,It
Athens,GR : 17th European Conference on Computational Biology

Impiego di CUSTOM PANEL (CP) nel tumore della mammella ereditario (HBC) : counseling e gestione del rischio

M.Calvello¹; I.Feroce¹; M.Marabelli¹; E.Marino²; E.Belloni²; L.Giacò²; **M.Dal Molin²**; C.Mauro²; L.Bernard²; Aliana Guerrieri-Gonzaga¹; B.Bonanni¹

1. Division of Cancer Prevention & Genetics, European Institute of Oncology, Milan,IT
2. Clinical Genomics Laboratory Unit, European Institute of Oncology, Milan,IT
Catania, IT: XV Congresso AIFEG - XXI Congresso Nazionale SIGU,2018

Can the site of colorectal cancer have a relevant role in diagnosing Lynch syndrome (LS) in universal screening approach ? A single center experience

M.Marabelli¹; G.Tolva¹,I.Feroce¹; P.R.Rafaniello²; M.Calvello¹; M.Lazzeroni¹; E.Belloni³; E.Marino³; **M.Dal Molin³**; L.Giacò³;C.Trovato⁴;S.Gandini⁵; Aliana Guerrieri-Gonzaga¹;S.Gandini⁵; L.Bernard³; M.Barberis²; L.Bertario¹;B.Bonanni¹

1. Division of Cancer Prevention & Genetics, European Institute of Oncology, Milan,IT
2. Division of Pathology, European Institute of Oncology, Milan, IT
- 3 Clinical Genomics Laboratory Unit, European Institute of Oncology, Milan,IT
4. Division of Endoscopy, European Institute of Oncology, Milan,IT
5. Molecular and Pharmaco-Epidemiology Unit, Department of Experimenta Oncology, European Institute of Oncology, Milan,IT
Barcellona, E: EuropeanHereditar Tumour Group (EHTG) Meeting, 2019