

UNIVERSITY OF MILAN

Public selection for recruiting No 1 tenure track researcher(s) (RTT) for competition sector 05/H1 - Anatomia Umana, (scientific-disciplinary sector BIO/16 - Anatomia Umana) at the Department of BIOSCIENZE, (announcement published in Official Gazette No. 49 of 18/06/2024 - Competition code 5571

Daniele Cartelli

CURRICULUM VITAE

PERSONAL DATA

Daniele Cartelli

E-mail daniele.cartelli@istituto-besta.it
Nationality Italian
Date of Birth 18/07/1982
Gender male

Orcid <https://orcid.org/0000-0002-7069-420X>

QUALIFICATIONS

DEGREE

2017 Professional Biologist qualification (157/200) at the Università degli Studi di Milano

2006 Degree in Biology applied to Biomedical research (107/110) at the Università degli Studi di Milano (Milano, Italy), with a thesis entitled: "Study on the involvement of microtubule dynamic in neurotoxin model of Parkinson's disease", under the supervision of Dr. G. Cappelletti

2004 Bachelor in Biological Sciences (100/110) at the Università degli Studi di Milano (Milano, Italy), with a thesis entitled: "Immunocytochemical analysis of the cholinergic innervations in the cerebral cortex of rodents", under the supervision of Dr. A. Amadeo

DOCTORAL DEGREE OR EQUIVALENT QUALIFICATION EARNED IN ITALY OR ABROAD / MEDICAL SPECIALISATION DIPLOMA OR EQUIVALENT QUALIFICATION, FOR THE RELEVANT SECTORS, EARNED IN ITALY OR ABROAD

2010 PhD in Cellular and Molecular Biology at the Università degli Studi di Milano (Milano, Italy), with a thesis entitled: "Microtubule dysfunctions in experimental models of Parkinson's disease", under the supervision of Dr. G. Cappelletti

RESEARCH CONTRACTS, RESEARCH FELLOWSHIP CONTRACTS, POSTDOCTORAL SCHOLARSHIPS OR SIMILAR CONTRACTS

- a) Ente: **Università degli Studi di Milano** (Ente Pubblico)
Con sede in Milano (MI) 20122
Via/P.zza Via Festa del Perdono, 7 Tel 0250325032
Profilo Professionale: Dottorando
Con contratto di lavoro a tempo determinato: Borsa di studio
Tempo pieno 100%
Dal 1/11/2006 al 30/04/2010
- b) Ente: **CIMAINA-Università degli Studi di Milano** (Ente Pubblico)
Con sede in Milano (MI) 20133
Via/P.zza Via Celoria 16,

Profilo Professionale: Tecnico di Microscopia Confocale
Con contratto di lavoro a tempo determinato: co.co.co
Tempo pieno 100%
Dal 1/05/2010 al 30/04/2011

- c) Ente: **Università degli Studi di Milano** (Ente Pubblico)
Con sede in Milano (MI) 20122
Via/P.zza Via Festa del Perdono, 7 Tel 0250325032
Profilo Professionale: Post Doc
Con contratto di lavoro a tempo determinato: Borsa di studio
Tempo pieno 100%
Dal 1/05/2011 al 30/04/2015
- d) Ente: **Fondazione IRCCS Istituto Neurologico Carlo Besta** (Ente del Servizio Sanitario Nazionale)
Con sede in Milano (MI) 20133
Via/P.zza Via Celoria, 11 Tel 0223941
Profilo Professionale: Ricercatore
Con contratto di lavoro a tempo determinato: co.co.co
Tempo pieno 100%
Dal 14/10/2017 al 31/12/2021
- e) Ente: **Fondazione IRCCS Istituto Neurologico Carlo Besta** (Ente del Servizio Sanitario Nazionale)
Con sede in Milano (MI) 20133
Via/P.zza Via Celoria, 11 Tel 0223941
Profilo Professionale: Ricercatore
Con contratto di lavoro a tempo determinato: Ricercatore Sanitario
Tempo pieno 100%
Dal 1/01/2022 a 31/01/2024
- f) Ente: **Fondazione IRCCS Istituto Neurologico Carlo Besta** (Ente del Servizio Sanitario Nazionale)
Con sede in Milano (MI) 20133
Via/P.zza Via Celoria, 11 Tel 0223941
Profilo Professionale: Ricercatore
Con contratto di lavoro a tempo indeterminato: Ricercatore Sanitario
Tempo pieno 100%
Dal 1/02/2024 a *in corso*

TEACHING ACTIVITIES AT ITALIAN OR FOREIGN UNIVERSITIES

- Course of "Histology", in the faculty of osteopathy, for the academic year 2007-2008
- Laboratory of "Comparative Anatomy", degree in Natural Sciences, from academic year 2009-2010 to academic year 2014-2015
- Seminar: "Live cell imaging: principles and applications in the study of cellular dynamics", part of the course on "survey instruments for the study of cells and molecules" for the PhD students of the school of Morphological and Physiological Sciences, in the years 2009 and 2010
- Tutor of practical session of the "IX Practical course of confocal microscopy", held by Fondazione Filarete-IFOM_Leica microsystems, in the year 2015.
- Teacher and tutor of practical sessions of the: "Basic course of (confocal) microscopy", held by Fondazione IRCCS Istituto Neurologico Carlo Besta in the year 2023.
- Co-tutor of many experimental thesis:
 - **Rossi Federica**, degree in Natural Sciences, Academic Year 2006-2007: "Neuronal cell: university and school in the didactics experimentation"
 - **Rota Paola**, degree in Natural Sciences, Academic Year 2006-2007: "Nitric Oxide as mediator in the neuronal differentiation process"
 - **Scorza Stefano**, bachelor in Natural Sciences, Academic Year 2007-2008: "Nitric Oxide: positive modulator of neuronal differentiation"
 - **Trevisan Simone**, bachelor in Biological Sciences, Academic Year 2007-2008: "Characterization of the biological activity of anti-tubulin peptides"

- **Toscano Arianna**, degree in Biology applied to Biomedical research, Academic Year 2007-2008: “Nitric Oxide and protein nitration: which role in neuronal differentiation?”
- **Gritti Marta**, bachelor in Biological Sciences, Academic Year 2009-2010: “Molecular mechanisms involved in the MPP⁺-induced neurodegeneration: synergic action between mitochondrial damage and microtubular dysfunction”
- **Urzi Alice**, bachelor in Biological Sciences, Academic Year 2009-2010: “From differentiation to neurodegeneration: a possible role of the α -synuclein in the regulation of microtubule polymerization dynamics”
- **Canuti Andrea**, degree in Biology applied to Biomedical research, Academic Year 2009-2010: “Analyses of the microtubular cytoskeleton in parkin knockout mice”
- **Falcioni Viviana**, bachelor in Natural Sciences, Academic Year 2009-2010: “Nitric Oxide, protein nitration and neuronal differentiation: the role of the inhibition of the guanylate cyclase”
- **Fumagalli Laura**, bachelor in Biological Sciences, Academic Year 2009-2010: “ α -synuclein effects on neuronal differentiation and microtubule stability”
- **Segreto Alberto**, degree in Biology applied to Biomedical research, Academic Year 2009-2010: “ α -synuclein: characterization of the interaction with tubulin *in vitro* and differentiated neuronal cells”
- **Lucano Ottavia**, bachelor in Biological Sciences, Academic Year 2010-2011: “ α -synuclein role during *in vitro* microtubule nucleation”
- **Limongi Laura**, bachelor in Natural Sciences, Academic Year 2010-2011: “Parkin role in the mitochondrial transport in differentiated neuronal cells”
- **Calcaterra Valerio**, bachelor in Natural Sciences, Academic Year 2010-2011: “Parkin role in the microtubule dynamics in differentiated neuronal cells”
- **Gritti Marta**, degree in Molecular Biology of the Cell, Academic Year 2011-2012: “Characterization of the interaction between α -Synuclein and microtubules”
- **Ferretti Marta**, bachelor in Natural Sciences, Academic Year 2011-2012: “Characterization of cellular differentiation in primary embryonal mesencephalic cultures”
- **Antenucci Anna**, bachelor in Natural Sciences, Academic Year 2012-2013: “Differentiation of neuronal cells from mammalian mesencephalon: the role of *Parkin* gene”
- **Magri Marcella**, degree in Molecular Biotechnology and Bioinformatics, Academic Year 2013-2014: “Biochemical characterization of the interaction between α -synuclein and tubulin/microtubules”
- **Costa Ilaria**, degree in Biology applied to Biomedical research, Academic Year 2013-2014: “Characterization of the nigrostriatal system in *Parkin* knockout mice”
- **Mazzilli Michela**, degree in Biology applied to Biomedical research, Academic Year 2023-2024: “Tubulin acetylation as molecular target for inducing sensory fibers regeneration: a study in a murine cellular model”

ATTESTED TRAINING OR RESEARCH ACTIVITIES AT QUALIFIED ITALIAN OR FOREIGN INSTITUTIONS

- Molecular and Cellular Neurobiology, Milan, Italy, June 2006
- 4^o conference on “real time” PCR. Technological approaches in the post-genomic era: beyond “Real Time” PCR. Milan, Italy, September 2006
- New frontiers in biology: stem cells, scientific research and clinical applications, Milan, Italy, February 2007
- In vivo cellular migration and immunofluorescence, Milan, Italy, March 2007
- Time-lapse microscopy & live cell imaging course, Anacapri, Italy, May 2007
- Mechanisms of mitosis and cell division, Milan, Italy, September 2007
- Workshop on Mechanism and Dynamics of the cytoskeleton: microtubules, Milan, Italy, May 2009
- Cellular and Molecular Responses to Stress, Milan, Italy, June 2009
- XIV School on Pure and Applied Biophysics on Molecular Mechanisms of Neurodegeneration, Venice, Italy, January 2010
- Introductory course on animal experimentation, Milan, Italy, November 2017
- Legislazione Nazionale ed Etica Livello 1, Moduli 1 e 2. DM 5Agosto 2021- Edizione Unica, IZSLER
- Biologia e Gestione degli Animali da Laboratorio, Moduli 3.1, 4, 5, 6.1, 7. DM 5Agosto 2021 Roditori e Lagomorfi- Edizione Unica, IZSLER

- Etica e Confezione dei Progetti, Moduli 9, 10, 11. DM 5 Agosto 2021- Edizione Unica, IZSLER
- Volume EM Workshop, September 2023, Oberkochen, Germany (Invited)

2008. Fellowship Lifelong Learning Programme Erasmus Placement: 3 months' stage at the Chretien laboratory (Rennes, France), under the supervision of Isabelle Arnal to learn the VEDIC (Video Enhanced Differential Interference Contrast) microscopy technique.

2012. 2 weeks in the laboratory of Dr Arnal (Grenoble Institut des Neurosciences, Grenoble, France) to perform VEDIC microscopy experiments on the effects of α -Synuclein on microtubule dynamics

2015. 6 months' stage in the laboratory of Dr Francolini (Department of Medical Biotechnology and translational Medicine, Università degli Studi di Milano, Milano, Italy) and Dr Marchesi (Fondazione Filarete) to learn the basis of both transmission and scanning electron microscopy and relative sample preparation.

ORGANISATION, SUPERVISION AND COORDINATION OF NATIONAL AND INTERNATIONAL RESEARCH GROUPS, OR PARTICIPATION IN THEM

1. Post Doc at Università degli Studi di Milano (2011-2015) with the grant "**Dote ricerca**", FSE, Regione Lombardia (to DC), for the research project entitled: "Microtubule dysfunction: is it the primary or an accessory culprit in MPTP model of Parkinson's disease?". The research activities were conducted in the laboratory of Prof Cappelletti
2. PI of the research project "Caratterizzazione delle alterazioni dei microtubuli e del trasporto assonico come potenziali responsabili della degenerazione selettiva delle piccole fibre nelle neuropatie periferiche" (DO-02-2019), **supported by RC funds** and done at Fondazione IRCCS Istituto Neurologico Carlo Besta (2019-2024), UOC Neurology 3
3. Co-PI of the research project "Probing the role of miRNA reprogramming in painful neuropathy", **supported by ICO FALCK** donations (250.000 euros) e svoltosi presso Fondazione IRCCS Istituto Neurologico Carlo Besta (2022-2027), UOC Neurology 3
4. **Manager** of the **borning facility of light and electron microscopy** at Fondazione IRCCS Istituto Neurologico Carlo Besta

HOLDING PATENTS

(For each patent, specify authors' names, title, classification (national or international), patent number, etc.)

na

SPEAKING AT NATIONAL AND INTERNATIONAL CONFERENCES AND CONVENTIONS

- 8th International Conference AD/PD, Salzburg, Austria, March 14-18, 2007
Neuronal microtubule dynamics as a novel target for the parkinsonism producing neurotoxin MPTP.
Ronchi C, **Cartelli D**, Maggioni MG, Rodighiero S, Giavini E, Cappelletti G.
- 3rd Meeting on the Molecular Mechanism of Neurodegeneration, Milan, Italy, May 19-21, 2007
Linking neuronal degeneration to microtubule dynamics by the parkinsonism toxin MPP⁺-mediated microtubule destabilization.
Cartelli D, Ronchi C, Maggioni MG, Rodighiero S, Giavini E, Cappelletti G.
- Gruppo Embriologico Italiano 53° Congresso, Giardini-Naxos, Italia, 6-9 Giugno, 2007
Ruolo di neuritina nel differenziamento neuronale indotto da NGF.
Cappelletti G, Galbiati R, Ronchi C, Onesto E, **Cartelli D**, Giavini E, Poletti A.
- ELSO Proceedings, Dresden, Germany, September 1-4, 2007
Enrichment in stable microtubules reveals dysfunction of microtubule dynamics occurring in Parkinson's disease models
Cartelli D, Ronchi C, Maggioni MG, Molinaro G, Battaglia G, Giavini E, Cappelletti G.
- XIII National Congress of the Italian society for Neuroscience, Verona, Italy, September 27-30, 2007
Neuritin (cpg15) enhances the differentiating effect of NGF on neuronal PC12 cells
Galbiati M, Cappelletti G, Ronchi C, **Cartelli D**, Onesto E, Poletti A.

- ELSO Proceedings, Nice France, August 30-September 2, 2008
Role of Neuritin (cpg15) on the NGF induced differentiation of neuronal PC12 cells
Galbiati M, Cappelletti G, Onesto E, Ronchi C, **Cartelli D**, Rusmini P, Zito A, Poletti A.
- FISV, 10th Annual Congress, Riva del Garda, Italy, September 24-27, 2008
Effect of different isoforms of cpg15 (neuritin) on differentiating PC12 cells
Galbiati M, Cappelletti G, **Cartelli D**, Onesto E, Zito A, Poletti A.
- II Workshop COST, Action Inhibitors of angiogenesis: design, synthesis and biological exploitation, Favignana, October, 2008
Insight into microtubule dynamics: from purified protein to cell
Cappelletti G and **Cartelli D**.
- 4th Meeting on the Molecular Mechanism of Neurodegeneration, Milan, Italy, May 8-10, 2009
Is Microtubule imbalance an early event in MPTP-induced neurodegeneration?
Cartelli D, Molinaro G, Battaglia G, Busceti CL, Giavini E, Cappelletti G.
- European Human Genetics Conference, ACV, Vienna, Austria, May 23-26, 2009
Searching for Centaurin- α 2 interacting proteins: evidence of interaction with tubulin-B
Stroppi M, Crippa M, Venturin M, **Cartelli D**, Cappelletti G, Battaglioli E, Riva P.
- FISV, 11st Annual Congress, Riva del Garda, Italy, September 23-25, 2009
Centaurin- α 2 interacts with tubulin-B through microtubules' anchoring
Stroppi M, Crippa M, **Cartelli D**, Cappelletti G, Venturin M, Battaglioli E, Riva P.
- XIII National Congress of the Italian society for Neuroscience, Milan, Italy, September 29- October 1, 2009
Microtubule dynamics imbalance leads to axonal transport impairment in MPP⁺-treated PC12 cells
Cartelli D, Toscano A, Giavini E, Cappelletti G.
- XIII National Congress of the Italian society for Neuroscience, Milan, Italy, September 29- October 1, 2009
Protein tyrosine nitration: a beneficial or detrimental cue during neuronal differentiation
Toscano A, **Cartelli D**, Ronchi C, Tedeschi G, Cappelletti G.
- XIII National Congress of the Italian society for Neuroscience, Milan, Italy, September 29- October 1, 2009
Neuritin: a regulatory protein of neuronal migration
Galbiati M, Cappelletti G, Zito A, **Cartelli D**, Cariboni A, Poletti A.
- EMBO Conference series, Microtubules: structure, regulation and functions, Heidelberg, Germany, June 2-5, 2010
Microtubule dysfunction in experimental model of Parkinson's disease
Cartelli D, Battaglia G, Cappelletti G.
 - 5th Meeting on the Molecular Mechanism of Neurodegeneration, Milan, Italy, May 13-15, 2011
Parkin absence impacts microtubule stability and axonal transport in knockout mice
Cartelli D, Sassone J, Amadeo A, Ciammola A, Cappelletti G.
 - 5th Meeting on the Molecular Mechanism of Neurodegeneration, Milan, Italy, May 13-15, 2011
Microtubule stability is precociously affected in a mouse model of Parkinson's disease
Cartelli D, Casagrande F, Battaglia G, Busceti C, Molinaro G, Cappelletti G.
 - The 3rd EMBO meeting, Vienna, Austria, September 10-13, 2011
 α -Synuclein nucleates short microtubules
Cartelli D., Aliverti A., Barbiroli A., Bonomi F., Cappelletti G.
- EMBO Conference 2nd in a series, Microtubules: structure, regulation and functions, Heidelberg, Germany, May 23-26, 2012
 α -Synuclein promotes microtubule nucleation
Cartelli D., Gritti M., Aliverti A, Barbiroli A., Cappelletti G.
- EMBO Conference 2nd in a series, Microtubules: structure, regulation and functions, Heidelberg, Germany, May 23-26, 2012
Parkin absence impacts microtubule stability and axonal transport in silenced neuronal cells and knockout mice
Casagrande F.^{*}, **Cartelli D.**^{*}, Hanusova K., Amadeo A., Sassone J., and Cappelletti G.
 - Federation of European Neuroscience Societies (FENS) Forum 2012, Barcelona, Spain, July 14-18, 2012
Calcium-binding proteins in the nigrostriatal system of parkin knockout mice
Amadeo A, **Cartelli D**, Casagrande F, Cappelletti G.
 - SfN (Society for Neuroscience) NEUROSCIENCE 2012, New Orleans, (LA) USA, October 13-17, 2012

Microtubule dysfunction in Parkinson's disease: the case of environmental neurotoxin 2,5-hexanedione

Casagrande F, Cartelli D, Hanusova K, Goldwurm S, Canesi M, Pezzoli G, Cappelletti G.

- The 11th International Conference on Alzheimer's and Parkinson's Diseases, Florence, Italy, March 6-10, 2013

Gene-environment interaction and microtubule dysfunction in Parkinson's disease: the case of Parkin and 2,5-hexanedione

Casagrande F, Cartelli D, Ferrari M, Goldwurm S, Canesi M, Pezzoli G, Cappelletti G.

- The 11th International Conference on Alzheimer's and Parkinson's Diseases, Florence, Italy, March 6-10, 2013

Microtubule alterations occur early in experimental parkinsonism and the microtubule stabilizer Epoposin D is neuroprotective

Cartelli D., Casagrande F., Battaglia G., Busceti C., Molinaro G., and Cappelletti G.

- SfN (Society for Neuroscience) NEUROSCIENCE 2013, San Diego, (CA) USA, November 9-13, 2013

Microtubules are early altered in mice injected with 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) and treatment with the microtubule stabilizer Epoposin D is neuroprotective

Cappelletti G, Cartelli D, Casagrande F, Busceti CL, Bucci D, Molinaro G, Traficante A, Passarella D, Giavini E, Pezzoli G, Battaglia G.

- EMBO Conference 3rd in a series, Microtubules: structure, regulation and functions, Heidelberg, Germany, May 28-31, 2014

γ-Synuclein is a microtubule dynamase

Cartelli D., Santambrogio C., Barbiroli A., Aliverti A., Grandori R., Arnal I., and Cappelletti G.

- EMBO Conference 3rd in a series, Microtubules: structure, regulation and functions, Heidelberg, Germany, May 28-31, 2014

Microtubule dynamics and axonal transport in neuronal cells: the role of Parkin

De Gregorio C., Cartelli D., Casagrande F., Sassone J., and Cappelletti G.

- 2019 PNS Annual Meeting, Genoa, Italy, June 22-24, 2019

Nav1.7 expressions in keratinocytes and skin nerve fibers

Andelic M., Cartelli D., Lombardi R., Cazzato D., Marchi M., Salvi E., Paolini M., D'Amato I., Lauria G.

- 25th World Congress of Neurology, Rome (Virtual), October 3-7, 2021

Ricoinostat induces microtubule acetylation and neurite regeneration in cellular models of diabetic and chemotherapy-induced neuropathy

Cartelli D., Mazzetti S., Lombardi R., Cazzato D., Andelic M., Marchi M., Salvi E., D'Amato I., Cappelletti G., Lauria G.

- Undicesima Riunione Annuale ASNP, Monza, November 18-20, 2021 (Oral Presentation)

Ricoinostat induces microtubule acetylation and neurite regeneration in cellular models of chemotherapy-induced neuropathy

Cartelli D, Semperboni S, Andelic M, Malacrida A, Nicolini G, Lombardi R, Cavaletti G, Lauria G, Meregalli C

- 2022 PNS Annual Meeting, Miami, Florida, USA, May 14-17, 2022 (Oral Presentation)

Microtubule acetylation rescues capsaicin-induced neurite degeneration and may predict fiber regeneration

D. Cartelli, D. Cazzato, G. Devigili, M. Andelic, S. Mazzetti, R. Lombardi, M. Corradi, A.M. Perilli, D. Modena, G. Cappelletti, G. Lauria

NATIONAL AND INTERNATIONAL AWARDS AND ACCOLADES FOR RESEARCH ACTIVITY

(Specify award and motivation for the award, date, issuing organisation, etc.)

na

QUALIFICATIONS UNDER ART.24, PARAGRAPH 3.a AND 3.b, OF LAW No.240/2010 OF 30 DECEMBER 2010

(Specify whether it is a type A or type B contract, University, contract effective date and end date, etc.)

na

SCIENTIFIC PRODUCTION

SCIENTIFIC PUBLICATIONS

Inhibitors of tubulin polymerization: synthesis and biological evaluation of hybrids of vindoline, anhydrovinblastine and vinorelbine with thiocolchicine, podophyllotoxin and baccatin III. Passarella D, Giardini A, Peretto B, Fontana G, Sacchetti A, Silvani A, Ronchi C, Cappelletti G, **Cartelli D**, Borlak J, Danieli B. *Bioorg Med Chem*. 2008 Jun 1;16(11):6269-85.

Semisynthesis of new D-seco-C-nor-taxane derivatives containing a polyfunctionalized furanosyl or cyclopentenyl or cyclopentyl C-ring. Gelmi ML, Nava D, Leone S, Pellegrino S, Baldelli E, Zunino F, Cappelletti G, **Cartelli D**, Fontana G. *J Org Chem*. 2008 Nov 21;73(22):8893-900.

Pleiotropic effects of spastin on neurite growth depending on expression levels. Riano E, Martignoni M, Mancuso G, **Cartelli D**, Crippa F, Toldo I, Siciliano G, Di Bella D, Taroni F, Bassi MT, Cappelletti G, Rugarli EI. *J Neurochem*. 2009 Mar; 108(5):1277-88.

Synthesis and biological evaluation of epothilone A dimeric compounds. Passarella D, Comi D, Cappelletti G, **Cartelli D**, Gertsch J, Quesada AR, Borlak J, Altmann KH. *Bioorg Med Chem*. 2009 Nov;17(21):7435-40.

In silico design of tubulin-targeted antimitotic peptides. Pieraccini S, Saladino G, Cappelletti G, **Cartelli D**, Francescato P, Speranza G, Manitto P, Sironi M. *Nature Chemistry* 2009 Nov; 1(8):642-648.

Synthesis and biological evaluation of novel thiocolchicine-podophyllotoxin conjugates. Passarella D, Peretto B, Blasco y Yepes R, Cappelletti G, **Cartelli D**, Ronchi C, Snaith J, Fontana G, Danieli B, Borlak J. *Eur J Med Chem*. 2010 Jan;45(1):219-26.

Microtubule dysfunction precedes transport impairment and mitochondrial damage in MPP⁺-induced neurodegeneration. **Cartelli D**, Ronchi C, Maggioni MG, Rodighiero S, Giavini E, Cappelletti G. *J. Neurochem*. 2010 Oct; 115: 247-258.

Tubulin-guided dynamic combinatorial library of thiocolchicine-podophyllotoxin conjugates. Cappelletti G, **Cartelli D**, Peretto B, Ventura M, Riccioli M, Colombo F, Snaith JS, Borrelli S, Passarella D. *TETRAHEDRON* 2011 Sep; 38:3754-3757

Mesenchymal Stromal Cells Primed with Paclitaxel Provide a New Approach for Cancer Therapy. Pessina A, Bonomi A, Coccè V, Invernici G, Navone S, Cavicchini L, Sisto F, Ferrari M, Viganò L, Locatelli A, Ciusani E, Cappelletti G, **Cartelli D**, Arnaldo C, Parati E, Marfia G, Pallini R, Falchetti ML, Alessandri G. *PLoS One* 2011;6(12):e28321.

Microtubule Destabilization Is Shared by Genetic and Idiopathic Parkinson's Disease Patient Fibroblasts. **Cartelli D**, Goldwurm S, Casagrande F, Pezzoli G, Cappelletti G. *PLoS One* 2012; 7(5):e37467.

Biofilm formation on nanostructured titanium oxide surfaces and a micro/nanofabrication-based preventive strategy using colloidal lithography. Singh AJ, Vyas V, Salve TS, **Cartelli D**, Dellasega D, Podesta A, Milani P, Gade WN. *Biofabrication* 2012; 4:025001.

Molecular dynamics and tubulin polymerization kinetics study on 1,14-heterofused taxanes: evidence of stabilization of the tubulin head-to-tail dimer-dimer interaction. Contini A, Cappelletti G, **Cartelli D**, Fontana G, Gelmi ML. *Mol. BioSystems* 2012; 8:3254-3261.

Investigation of *in vitro* cytotoxicity of the redox state of ionic iron in neuroblastoma cells. Singh AV, Vyas V, Maontani E, **Cartelli D**, Parazzoli D, Oldani A, Zeri G, Orioli E, Gemmati D, Zamboni P. *Journal of Neurosciences in Rural Practice* 2012; 3:301-310.

Centaurin- α_2 Interacts with β -Tubulin and Stabilizes Microtubules. Zuccotti P*, **Cartelli D***, Stroppi M*, Pandini V, Venturin M, Aliverti A, Battaglioli E, Cappelletti G, Riva P. *PLoS One* 2012; 7(12):e52867.

Preparation of fluorescent tubulin dimers. Riva E, Mattarella M, Borrelli S, Christodoulou MS, **Cartelli D**, Main M, Faulkner S, Sykes D, Cappelletti G, Snaith JS, Passarella D. *ChemPlusChem* 2013; 78:222-226.

Microtubule alterations occur early in experimental parkinsonism and the microtubule stabilizer Epothilone D is neuroprotective. Cartelli D, Casagrande F, Busceti CL, Bucci D, Molinaro G, Traficante A, Passarella D, Giavini G, Pezzoli G, Battaglia G, Cappelletti G. *Scientific Reports* 2013; 3:1837.

9-Fluorenone-2-Carboxylic Acid as a Scaffold for Tubulin Interacting Compounds. Calogero F, Borrelli S, Speciale G, Christodoulou MS, Cartelli D, Ballinari D, Sola F, Albanese C, Ciavolella A, Passarella D, Cappelletti G, Pieraccini S, Sironi M. *ChemPlusChem* 2013; 78:663-669.

Neuritin 1 promotes neuronal migration. Zito A*, Cartelli D*, Cappelletti G, Cariboni A, Andrews W, Parnavelas J, Poletti A, Galbiati M. *Brain Structure and Function* 2014; 219:105-118.

New class of squalene-based releasable nanoassemblies of paclitaxel, podophyllotoxin, camptothecin and epothilone A. Borrelli S, Christodoulou MS, Ficarra I, Silvani A, Cappelletti G, Cartelli D, Damia G, Ricci F, Zucchetti M, Dosio F, Passarella D. *Eur J Med Chem* 2014; 85:179-190.

Covalent immobilization of bioactive poly(amidoamine)s onto plasma-functionalized PLGA surfaces. Zanini S, Riccardi C, Natalello A, Cappelletti G, Cartelli D, Fenili F, Manfredi A, Ranucci E. *Materials Research Express* 2014;

Self-assembled squalene-based fluorescent heteronanoparticles . Borrelli S, Cartelli D, Secundo F, Fumagalli G, Christodoulou MS, Borroni A, Perdicchia D, Dosio F, Milla P, Cappelletti G, Passarella D. *ChemPlusChem* 2015; 80:47-49.

Linking microtubules to Parkinson's disease: The case of parkin. Cappelletti G, Casagrande F, Calogero A, De Gregorio C, Pezzoli G, Cartelli D. *Biochemical Society Transactions* 2015; 43:292-296.

Frataxin silencing alters microtubule stability in motor neurons: implications for Friedreich's Ataxia. Piermarini E, Cartelli D, Pastore A, Tozzi G, Compagnucci C, Giorda E, D'Amico J, Petrini S, Bertini E, Cappelletti G, Piemonte F. *Human Molecular Genetics* 2016; 25: 4288-4301.

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