EMILIO CUSANELLI

PERSONAL INFORMATION

Date and place of birth:
October 20th 1980, Benevento, Italy;

Citizenship:
Italian;

Work Address:
Centre for Integrative Biology (CIBIO), University of Trento,
via Sommarive 9, 38123 Povo, Trento, Italy.
Tel. +39-0461-285357, e-mail: emilio.cusanelli@unitn.it
website: http://www.cibio.unitn.it/501/cell-biology-and-molecular-genetics

EDUCATION AND RESEARCH

July 2016 – to date
Senior Researcher/Principal Investigator, Laboratory of Cell Biology and Molecular Genetics, Centre for Integrative Biology "CIBIO", University of Trento, Trento, Italy.

2014 – 2016
Post-doc, University of Vienna, Department of Chromosome Biology, Max F. Perutz Laboratories "MFPL", Vienna, Austria. (Host laboratory: prof. Michael Jantsch)

2009 - 2014
Post-doc, University of Montreal, Department of Biochemistry and Molecular Medicine, Montreal, Quebec, Canada. (Supervisor: prof. Pascal Chartrand)

2005 - 2009
Ph.D. in Molecular Medicine (curriculum Molecular Oncology), European School of Molecular Medicine "SEMM", University Federico II, CEINGE Research Institute, Naples, Italy. (Supervisor: prof. Massimo Zollo)

2006
Visiting PhD student, Department of Microbiology and Immunology, Albert Einstein College of Medicine, New York, USA. (Supervisor: prof. Luciano D'Adamio)

1999 - 2004
Degree in Biological Sciences (curriculum Molecular Biology), (110/110 cum laude with honors), University of Sannio, Benevento, Italy. (Supervisor: prof. Pasquale Vito)

RESEARCH INTERESTS

RNA biology, Telomere biology, Molecular Genetics
Role of the long noncoding RNA TERRA in telomere biology and human diseases
Mechanisms regulating telomere function and genome stability

PUBLICATIONS

Avogaro L, Querido E, Dalachi M, Jantsch M, Chartrand P, **Cusanelli E**. (2018) Live-cell imaging reveals the dynamics and function of single-telomere TERRA molecules in human cancer cells. *Under review*

Perez-Romero CA, Lalonde M, Chartrand P, **Cusanelli E**. (2018) Induction and relocalization of telomeric repeat-containing RNAs during diauxic shift in budding yeast. *Under review*

Moradi-Fard S, Sarthi J, Tittel-Elmer M, Lalonde M, **Cusanelli E**, Chartrand P, Cobb J. (2016) Smc5/6 is a telomere-associated complex that regulates Sir4 binding and TPE. *PLOS Genetics*, 12(8): e1006268
Impact Factor: 6.1 Scopus Citations: 3

Cusanelli E* and Chartrand P. (2015) Telomeric repeat-containing RNA TERRA: a noncoding RNA connecting telomere biology to genome integrity. *Frontiers in Genetics*, 6: 143.
* Corresponding author
Impact Factor: 3.8 Scopus Citations: 41

Cusanelli E and Chartrand P. (2014) Telomeric non-coding RNA TERRA in telomere biology. *Wiley Interdiscip. Rev. RNA*, 5(3): 407-419
Impact Factor: 4.8 Scopus Citations: 11

Cusanelli E, Perez Romero CA, Chartrand P. (2013) Telomeric non-coding RNA TERRA is induced by telomere shortening to nucleate telomerase molecules at short telomeres. *Molecular Cell*, 51(6): 780-791
Impact Factor: 14.7 Scopus Citations: 71

Andolfo I, Liguori L, De Antonellis P, **Cusanelli E**, Marinaro F, Pistollato F, Garzia L, De Vita G, Petrosino G, Accordi B, Migliorati R, Basso G, Iolascon A, Cinalli G, Zollo M. (2012) The micro-RNA 199b-5p regulatory circuit involves Hes1, CD15, and epigenetic modifications in medulloblastoma. *Neuro-Oncology*, (3): 596-612
Impact Factor: 7.8 Scopus Citations: 26

Gallardo F*, Laterreur N*, **Cusanelli E**, Ouenzar F, Querido E, Wellinger RJ, Chartrand P. (2011) Live cell imaging of telomerase RNA dynamics reveals cell cycle-dependent clustering of telomerase at elongating telomeres. *Molecular Cell*, 44(5): 819–827. * Equally contributed
Impact Factor: 14.7 Scopus Citations: 62

De Antonellis P,* Medaglia C, **Cusanelli E**,* Andolfo I, Liguori L, De Vita G, Carotenuto M, Bello A, Formiggini F, Galeone A, De Rosa G, Virgilio A, Scognamiglio I, Sciro M, Basso G, Schulte JH, Cinalli G, Iolascon A, Zollo M. (2011) MiR-34a targeting of Notch ligand Delta-like 1 impairs CD15/CD133 tumor-propagating cells and supports neural differentiation in medulloblastoma. *PLoS One*, 6(9): e24584. *Equally contributed
Impact Factor: 2.8 Scopus Citations: 96

Garzia L, Andolfo I, **Cusanelli E**, Marino N, Petrosino G, De Martino D, Esposito V, Galeone A, Navas L, Esposito S, Gargiulo S, Fattet S, Donofrio V, Cinalli G, Brunetti A, Del Vecchio L, Northcott PA, Delattre O, Taylor M, Iolascon A, Zollo M. (2009) MicroRNA-199b5p impairs cancer stem cells through negative regulation of HES1 in medulloblastoma. *PLoS One*, 4(3): e4998
Impact Factor: 2.8 Scopus Citations: 176

Tammenkoski M, Koivula K, **Cusanelli E**, Zollo M, Steegborn C, Baykov AA, Lahti R. (2008) The human metastasis regulator protein h-prune is a short-chain exopolyphosphatase. *Biochemistry*, 7(36): 9707-13
Impact Factor: 2.9 Scopus Citations: 55

FELLOWSHIPS

2016 – 2019. Rita Levi Montalcini Fellowship, Italian Ministry of Education, University and Research "MIUR"

2014 – 2017. Post-doctoral fellowship, Marie Curie co-fund Interdisciplinary Cancer Research "INDICAR" program, University of Vienna, Austria

2005 – 2009. Ph.D. fellowship, European School of Molecular Medicine "SEMM", University Federico II, Naples, Italy

FUNDING

2016 – 2019. Research grant: 42.000 euro, Rita Levi Montalcini Reintegration Program, Italian Ministry of Education, University and Research "MIUR"

2014 – 2017. Research grant: 54.000 euro, Marie Curie co-fund Interdisciplinary Cancer Research "INDICAR" program, University of Vienna, Austria

SPEAKER AT INTERNATIONAL MEETINGS

2016. EMBO Conference on Telomeres, Telomerase & Disease, Liege, Belgium.
2014. 2nd Canadian Symposium on Telomeres and Genome Integrity, Quebec City, Canada.
2013. Telomere & Telomerase meeting 2013, Cold Spring Harbor Laboratory, New York.
2011. Telomere & Telomerase meeting 2011, Cold Spring Harbor Laboratory, New York.

INVITED SPEAKER AT SEMINARS

2015. University of Trento, Center for Integrative Biology "CIBIO", Italy.
2014. School of Molecular and Cellular Biology, University of Leeds, United Kingdom.
2012. RiboClub Seminar session, University of Sherbrooke, Canada.

REVIEWING EXPERIENCE

Ad hoc reviewer for the journals: *RNA Biology*, *International Journal of Molecular Sciences*, *Acta Biochimica et Biophysica Sinica*

STUDENT SUPERVISION

During my career, I directly supervised two post-docs, two graduate students and seven undergraduate students.

TEACHING ACTIVITIES

- Course of *Introduction to Cell Biology* (course # 14538), University of Trento, academic years 2016/2017 and 2017/2018, Master degree in *Mathematics for Life Sciences*.
- Course of *Molecular Biology of the Cell* (course #145550), University of Trento, academic year 2016/2017 and 2017/2018, Master degree in *Quantitative and Computational Biology*.
- Course of *Biologia degli Organismi* (course #145281), University of Trento, academic year 2017/2018, Bachelor degree in *Mathematics*.

Academic curriculum vitae (short version) - **Peter De Wulf**

1. Personal details

Place, date of birth: Deinze (Belgium), 29/11/1968
Phone: (++39) 0461285359
E-mail: peter.dewulf@unitn.it
Address: via Sommarive 9, 38123 Povo (TN)

2. Main area of research

a) Studying the roles of the orthologous oncogenic kinases Rio1 (budding yeast) and RIOK1 (human cells) in chromosome segregation, rDNA and telomere stability, transcription and intracellular signaling.
b) Targeting RIOK1 to selectively eradicate KRAS-dominant and MTAP-deleted tumors, as well as drug- and hormone therapy-resistant prostate cancers.

3. Professional information

09/2016 - present:	Associate professor in Molecular Biology Centre for Integrative Biology (CIBIO), University of Trento via Sommarive 9, 38123 Povo (TN), Italy Website lab: http://www.cibio.unitn.it/510/chromosome-segregation-biology
08/2005 - 07/2016	Principal Investigator (Group Leader) European Institute of Oncology Department of Experimental Oncology, Milan, Italy
11/1999 - 06/2005	Research associate in chromosome biology Department of Biology, Massachusetts Institute of Technology 77 Massachusetts Avenue, 02139 Cambridge (MA), USA Mentor: Prof. Peter K. Sorger
07/1996 - 10/1999	Post-doctoral research fellow in signal transduction Department of Microbiology and Molecular Genetics, Harvard University 210 Longwood Avenue, 02115 Boston (MA), USA Mentor: Prof. Edmund C.C. Lin

4. Education and training

06/1995 - 06/1996	Training in yeast cell biology Department of Applied Biochemistry, University of Milan via Celoria 26, 20133 Milan, Italy Mentor: Prof. Lilia Alberghina
01/1992 - 05/1995	Ph.D. in Industrial Microbiology and Biocatalysis Department of Biochemical and Microbial Technology Faculty of Bioengineering, University of Ghent Coupure Links 653, 9000 Ghent, Belgium Mentor: Prof. Erick J. Vandamme
10/1986 - 07/1991	M.Sc. in Bioengineering, Major: Cell and Gene Biotechnology Faculty of Bioengineering, University of Ghent Coupure Links 653, 9000 Ghent, Belgium M.Sc. thesis mentor: Prof. Erick J. Vandamme

5. Professional activities

Teaching: Molecular Biology - University of Trento - 2nd year B.Sc. students in Biomolecular Sciences and Technology.

Manuscript reviewer: Cell, Cell Reports, Current Biology, Journal of Cell Biology, Molecular and Cellular Biology, Nature Cell Biology, PLoS Genetics, etc.

Grant reviewer: The Wellcome Trust (UK), The Wellcome Trust (UK)-India Alliance, National Science Foundation (USA), ETH Research Commission (Switzerland), etc.

Co-editor & author, textbook "The Kinetochore: from Molecular Discoveries to Cancer Therapy". Eds. De Wulf P., Earnshaw W.C. Springer, New York, pp. 516. 1st Edition, 2nd Printing. DOI 10.1007/978-0-387-69076-6, ISBN: 978-0-387-69073-5, e-ISBN: 978-0-387-69076-6. http://www.springer.com/biomed/cancer/book/978-0-387-69073-5

6. Distinctions & Awards

01/03/2015	Featured Research Scientist. "Expanding Oncology Options". Pan European Networks Science & Technology, **14:**130-131.
01/02/2014	Featured Biomedical Scientist, International Innovation – European Healthcare "Secrets of Segregation". International Innovation, **133:**56-58.
11/28/2012	Abilitazioni Scientifiche Nazionali 2nda Fascia (valid from 12/02/2014 - 12/02/2020) General and Clinical Biochemistry, Molecular Biology, Applied and Experimental Biology
2001 – 2003	Post-Doctoral Basic Science Research Fellowship from the Charles A. King Trust - The Medical Foundation, Boston (MA), USA.
2001	Elected Full Member to the Sigma Xi Research Society of Science and Engineering (MIT Chapter), USA.
1998 - 1999	Dr. D. Collen-B.A.E.F. Post-Doctoral Research Fellowship (Belgium-USA).
1995 - 1996	Studax Post-Doctoral Training Fellowship (Belgium).
1995 - 1996	Commett Scholarship (European Community).
1995 - 1996	Erasmus Scholarship (European Community).
15/05/1995	Greatest Distinction, Ph.D., University of Ghent, Belgium.
1995	Finalist European Technology Awards, Delft University, The Netherlands.
1994 - 1995	Winner of the "Biannual KVCV-Exxon Co. Prize for Biochemistry 1994-1995".
1992 - 1995	Pfeifer & Langen Doctoral Fellowship (Germany).

7. De Wulf lab – Research funding (selected)

2006 - 2009	Associazione Italiana per la Ricerca sul Cancro (120.000€). Title: Structural and functional dissection of the budding yeast kinetochore. Investigator grant nr. 1287.
2008 - 2011	Association for International Cancer Research (WWCR, 105.000€). Title: Targeting the Ndc80 kinetochore subcomplex for cancer inhibitors. Investigator grant nr. 08-0465.
2010 - 2013	Associazione Italiana per la Ricerca sul Cancro (210.000€). Title: Molecular and functional dissection of novel kinetochore protein Cnn1 in *Saccharomyces cerevisiae*. Investigator grant nr. 8840.

2013 - 2015 Associazione Italiana per la Ricerca sul Cancro (360.000€).
Title: Regulation of kinetochore activity and chromosome segregation by the novel, conserved kinetochore kinase Rio1. Investigator grant nr. 13243.

01/01/2016 - 31/12/2018 Associazione Italiana per la Ricerca sul Cancro (369.886€).
Title: The conserved kinase Rio1 and phosphatase Cdc14 down-regulate centromere transcription to promote kinetochore activity. Investigator Grant nr. 19250.

8. Peer-reviewed publications
ORICD ID: 0000-0001-9772-5881

Iacovella M.G., Bremang M., Basha O., Giacò L., Carotenuto W, Golfieri C., Dal Maschio M, Infantino V., Szakal B., Beznoussenko G.V., Visintin C., Mironov A.A., Visintin R., Branzei R., Ferreira-Cerca S., Yeger-Lotem E., **De Wulf P**. Integrating Rio1 activities discloses its nutrient-activated network in *Saccharomyces cerevisiae.* Nucleic Acids Research. Paper undergoing minor revisions.

Smurova K., **De Wulf P.** (2018). Models of how faithful centromere transcription prevents aneuploidy and tumorigenesis. Frontiers in Genetics (in press, Invited Review).

Iacovella M.G., Golfieri C., Massari L.F., Busnelli S., Pagliuca C., Dal Maschio M., Infantino V., Visintin R., Mechtler K., Ferreira-Cerca S., **De Wulf P.** (2015). Rio1 promotes rDNA stability and downregulates RNA polymerase I to ensure rDNA segregation. Nature Communications, 6:6643. doi: 10.1038/ncomms7643.

Thapa K.S., Oldani A., Pagliuca C., **De Wulf P.**, Hazbun T.R. (2015). The Mps1 kinase modulates the recruitment and activity of $Cnn1^{CENP-T}$ at *Saccharomyces cerevisiae* kinetochores. Genetics, 200:79-90.

Bock L.J., Pagliuca C., Kobayashi N., Grove R.A., Oku Y., Shrestha K., Alfieri C., Golfieri C., Oldani A., Dal Maschio M., Bermejo R., Hazbun T.R., Tanaka T.U., **De Wulf P.** (2012). Cnn1 inhibits the interactions between the KMN complexes of the yeast kinetochore. Nature Cell Biology, 14:614-624.

Nguyen T.L., Cera M.T., Pinto A., Lo Presti L., Hamel E., Conti P., Gussio R., **De Wulf P.** (2012). Evading Pgp activity in drug-resistant cancer cells: a structural and functional study of antitubulin furan metotica compounds. Molecular Cancer Therapeutics, 11:1103-1111.

Cho-U-S, Corbett K.D., Al-Bassam J., Belizzi J.J.IIIrd, **De Wulf P.**, Espelin C.W., Miranda J.J., Simons K., Sorger P.K., Harrison S.C. (2011). Molecular structures and interactions in the yeast kinetochore. Cold Spring Harbor Symposium in Quantitative Biology, 75:395-401.

De Wulf P., Cheeseman IM (2010). Tension at EMBO's Aneuploidy Workshop. EMBO Reports, 11:727-729.

Screpanti E., Santaguida S., Nguyen T.L., Silvestri R., Gussio R., Musacchio A., Hamel E., **De Wulf P.** (2010). A screen for kinetochore-microtubule interaction inhibitors identifies novel antitubulin compounds. PLoS One, 5:e11603.

De Wulf P., Montani F., Visintin R. (2009) Protein phosphatases take the mitotic stage. Current Opinion in Cell Biology, 21:806-815.

Pagliuca C., Draviam V.M., Marco E., Sorger P.K., **De Wulf P.** (2009). Roles for the conserved Spc105p/Kre28p complex in kinetochore-microtubule binding and the spindle assembly checkpoint. PLoS One, 4:e7640.

Fukagawa T., **De Wulf P.** (2009). Kinetochore composition, formation and organization. In: "The Kinetochore: from Molecular Discoveries to Cancer Therapy". Eds. De Wulf P., Earnshaw W.C. Springer Publ., New York City, p. 133-191.

Cohen R.L., Espelin C.W., **De Wulf P.**, Sorger P.K., Harrison S.C., Simons K.T. (2008). Structural and functional dissection of Mif2p, a conserved DNA-binding kinetochore protein. Molecular Biology of the Cell, 19:4480-4491.

De Wulf P., Visintin R. (2008). Cdc14B and APC/C tackle DNA damage. Cell, 134:210-212.

Ciferri C., Pasqualato S., Screpanti E., Maiolica A., Polka J., DeLuca J.B., **De Wulf P.**, Salek M., Rappsilber J., Moores C.A., Salmon E.D., Musacchio A. (2008). Implications for kinetochore-microtubule attachment from the structure of an engineered Ndc80 complex. Cell, 133:427-439.

Miranda JJ.M., **De Wulf P.**, Sorger P.K., Harrison S.C. (2005). The yeast DASH complex forms closed rings on microtubules. Nature Structural and Molecular Biology, 12:138-143.

Liu X.Q., **De Wulf P.** (2004). Probing the ArcA-P modulon of *Escherichia coli* by whole-genome transcriptional analysis and sequence recognition profiling. Journal of Biological Chemistry, 279:12588-12597.

De Wulf P., McAinsh A.D., Sorger P.K. (2003). Hierarchical assembly of the budding yeast kinetochore from multiple subcomplexes. Genes and Development, 17:2902-2921.

De Wulf P., McGuire A.M., Liu X.Q., Lin E.C.C. (2002). Genome-wide profiling of promoter recognition by the two-component response regulator CpxR-P in *Escherichia coli*. Journal of Biological Chemistry, 277:26652-26661.

De Wulf P., Lin E.C.C. (2000). Cpx two-component signal transduction in *Escherichia coli*: excessive CpxR-P levels underlie CpxA* phenotypes. Journal of Bacteriology, 182:1423-1426.

De Wulf P., Akerley B.J., Lin E.C.C. (2000). Presence of the Cpx system in bacteria. Microbiology, 146:247-248.

De Wulf P., Brambilla L., Vanoni M., Porro D., Alberghina L. (2000). Real-time flow cytometric quantification of GFP expression and Gfp fluorescence generation in *Saccharomyces cerevisiae*. Journal of Microbiological Methods, 42:57-64.

De Wulf P., Soetaert W., Vandamme E.J. (2000). Optimized synthesis of L-sorbose by C5-dehydrogenation of D-sorbitol with *Gluconobacter oxydans*. Biotechnology and Bioengineering, 69:339-343.

McGuire A.M.*, **De Wulf P.***, Church G.M., Lin E.C.C. (1999). A weight matrix for binding recognition by the redox-response regulator ArcA-P of *Escherichia coli*. Molecular Microbiology, 32:219-221 (*Contributed equally).

Membrillo-Hernandez J., Kwon O., **De Wulf P.**, Finkel S.E., Lin E.C.C. (1999). Regulation of *adhE* (encoding ethanol oxidoreductase) by the Fis protein in *Escherichia coli*. Journal of Bacteriology, 181:7390-7393.

Pellicer M.T., Lynch A.S., **De Wulf P.**, Boyd D., Aguilar J., Lin E.C.C. (1999). A mutational study of the ArcA-P binding sequences in the *aldA* promoter of *Escherichia coli*. Molecular and General Genetics, 261:170-176.

De Wulf P., Kwon O., Lin E.C.C. (1999). The CpxRA signal transduction system of *Escherichia coli*: growth-related autoactivation and control of unanticipated target operons. Journal of Bacteriology, 181:6772-6778.

Georgellis D., Kwon O., **De Wulf P.**, Lin E.C.C. (1998). Signal decay through a reverse phosphorelay in the Arc two-component signal transduction system. Journal of Biological Biochemistry, 273:32864-32869.

Pogliano J., Dong J.-M., **De Wulf P.**, Furlong D., Boyd D., Losick R., Pogliano K., Lin E.C.C. (1998). Aberrant cell division and random FtsZ ring positioning in *Escherichia coli cpxA** mutants. Journal of Bacteriology, 180:3486-3490.

De Wulf P. (1998). Presence of the ribulose monophosphate pathway in *Bacillus subtilis*. Microbiology, 144:596-597.

Vandamme, E.J., De Baets S., Vanbaelen A., Joris K., **De Wulf P.** (1998). Improved production of bacterial cellulose and its application potential. Polymer Degradation and Stability, 59:93-99.

De Wulf P., Soetaert W., Schwengers D., Vandamme E.J. (1997). Specific organic acids enhance the D-ribose productivity of a transketolase-defective *Bacillus subtilis* strain. Journal of Chemical Technology and Biotechnology, 70:311-315.

De Wulf P., Vandamme E.J. (1997). Microbial synthesis of D-ribose: metabolic deregulation and fermentation process. Advances in Applied Microbiology, 44:167-214.

De Wulf P., Vandamme E.J. (1997). Production of D-ribose by fermentation. Applied Microbiology and Biotechnology, 48:141-148.

De Wulf P., Soetaert W., Schwengers D., Vandamme E.J. (1997). Optimization of D-ribose production with a transketolase-affected *Bacillus subtilis* mutant strain in glucose and gluconic acid-based media. Journal of Applied Microbiology, 83:25-30.

De Wulf P., Soetaert W., Schwengers D., Vandamme E.J. (1996). D-Glucose does not catabolite repress a transketolase-deficient D-ribose producing *Bacillus subtilis* mutant strain. Journal of Industrial Microbiology and Biotechnology, 17:104-109.

De Wulf P., Soetaert W., Schwengers D., Vandamme E.J. (1996). Screening and mutational improvement of a D-ribose secreting *Candida pelliculosa* strain. Journal of Fermentation and Bioengineering, 82:1-7.

De Wulf P., Joris K., Vandamme E.J. (1996). Improved cellulose formation by an *Acetobacter xylinum* mutant limited in (keto)gluconate synthesis. Journal of Chemical Technology and Biotechnology, 67:376-380.

Joris K., Billiet F., **De Wulf P.**, Vandamme E.J. (1993). Enhanced bacterial cellulose yield in aerated *Acetobacter xylinum* cultures by adding micro-particles. In: "Cellulosics: Materials for Selective Separations and Other Technologies" (Polymer Science and Technology). Eds. Kennedy J.F., Phillips G.O., Williams P.A.; Ellis Horwood, New York, p. 239-245.

Patent

Amici R., Fagá G., Cera M.R., **De Wulf P.** (2010). 6(-2-Furyl)-3-methyl-4-oxo-1,5,6,7-tetrahydroindole-2-carboxylate derivatives and use thereof. PCT/IB2010/055845.

Ph.D. thesis (1995). "Microbial synthesis of D-ribose"/"Microbiële synthese van D-ribose". 220 pp. UDC No. 547.455.5 http://search.ugent.be/meercat/x/view/rug01/000351054
Promotor: Prof. Erick J. Vandamme.
RUG. Faculteit Landbouwkundige en Toegepaste Biologische Wetenschappen: Cel- en Genbiotechnologie.

M.Sc. thesis (1991). "Fysische procesparameters van de celluloseproductie met *Acetobacter xylinum*". 90 pp. No. rug01:001305731 http://search.ugent.be/meercat/x/view/rug01/001305731
Promotor: Prof. Erick J. Vandamme.
RUG. Faculteit Landbouwwetenschappen.

Curriculum Vitae Luca Fava

Name, Surname: Luca, Fava
Place of birth: Bolzano-Bozen, Italy
Date of birth: August 10th, 1983
Nationality: Italian
Contact: Armenise-Harvard Laboratory of Cell Division,
Centre of Integrative Biology (CIBIO),
University of Trento, via Sommarive 9, 38123
Povo (TN), Italy
Tel: +390461285215
Email: luca.fava@unitn.it
Web: http://www.cibio.unitn.it/663/armenise-harvard-laboratory-of-cell-division

Main research interests:
Cell biology, cell division cycle, cell death, cancer research, centrosome biology, protein biochemistry, proteomics

Academic degrees
2017 Habilitation, Applied Biology (national qualification to cover the position of associate professor in Italian Universities)
2007-2011 Ph.D. in Cell Biology: Max Planck Institute of Biochemistry, Germany & University of Basel, Switzerland. Dr. Phil. Awarded by the University of Basel in October 2011. Grade "Magna cum Laude".
2005 –2007 Master in Molecular Biology: (Laurea Magistrale) completed with First Class Honours, University of Padua, Italy. Grade 110/110, with distinction.
2002 – 2005 Bachelor in Molecular Biology: (Laurea Triennale) completed with First Class Honours, University of Padua, Italy. Grade 110/110, with distinction.

Positions held to date
2017 – present Assistant Professor (tenure track) and research group leader, Armenise-Harvard Laboratory of Cell Division, Centre of Integrative Biology (CIBIO), University of Trento, Italy
2011 – 2017 Postdoctoral fellow. Laboratory of Prof. Andreas Villunger, Division of Developmental Immunology, Innsbruck Medical University, Innsbruck, Austria
2009 – 2011 PhD student, part II, Characterization of mitotic checkpoint complexes. Prof. Erich Nigg's laboratory, Growth & Development, Biozentrum, University of Basel, Switzerland
2007 – 2009 PhD student, part I, Characterization of mitotic checkpoint complexes. Prof. Erich Nigg's laboratory, Department of Cell Biology, Max Planck Institute of Biochemistry, Martinsried, Germany
2006 – 2007 MSc student, Functional and structural characterization of the γ-Tubulin complex in S. cerevisiae. Prof. Elmar Schiebel's laboratory, ZMBH – University of Heidelberg, Germany

Funding history as principal investigator

2017-2020/22 (3+2 years) Armenise-Harvard foundation, (600.000 + 400.000 USD). Awarded with the Centre for Integrative Biology, University of Trento as hosting institution. Project Title: "How do cells count their centrosomes? A mechanistic study".
2017-2020 South Tyrol/Alto Adige government, (268.000 €). Awarded with Innsbruck Medical University as hosting institution. Project title: "Investigating the regulation of MCL1 protein turnover and its relevance for cancer treatment".
2015-2017 Tiroler Krebshilfe -Tyrolean Cancer Aid (20.000 € consumables). Awarded with Innsbruck Medical University as hosting institution. Project title: "MCL1 degradation upon extended mitotic arrest".
2014-2016 MUI-Start of the Innsbruck Medical University (15.000 € consumables). Awarded with Innsbruck Medical University as hosting institution. Project title: "Caspase-2 in cell death induced by polyploidization".
2012-2014 Tiroler Wissenschaftsfonds- Tyrolean Science Fund (19.800 € consumables). Awarded with Innsbruck Medical University as hosting institution. Project title: "Caspase Aktivierung nach langfristigen M-Arrest".
2012-2014 Tiroler Krebshilfe -Tyrolean Cancer Aid (35.000 € consumables). Awarded with Innsbruck Medical University as hosting institution. Project title: "Caspase activation on extended mitotic arrest".

2012-2014 EMBO long term postdoctoral fellowship (two years of postdoc salary, equivalent to ca. 120.000 €). Awarded with Innsbruck Medical University as hosting institution. Project title: "Orchestration of caspase activation by Bcl-2 Family proteins upon Extended mitotic arrest".
2012-2014 FEBS long term postdoctoral fellowship (two years of postdoc salary, equivalent to ca. 120.000 €, declined). Awarded with Innsbruck Medical University as hosting institution. Project title: "Orchestration of caspase activation by Bcl-2 Family proteins upon Extended mitotic arrest".

Publications

1. Fava Luca, Schuler Fabian, Sladky Valentina, Haschka Manuel D., Soratroi Claudia, Eiterer Lisa, Demetz Egon, Weiss Guenter, Geley Stephan, Nigg Erich A., Villunger Andreas (2017). The PIDDosome activates p53 in response to supernumerary centrosomes. GENES & DEVELOPMENT, vol. 31, p. 34-45, ISSN: 0890-9369, doi: 10.1101/gad.289728.116
2. Liccardi, Gianmaria, Fava, Luca (2017). Fiat Lux: illuminating the cell cycle.. CELL DEATH DISCOVERY, vol. 2017, p. 17042-17043, ISSN: 2058-7716, doi: 10.1038/cddiscovery.2017.42
3. Sladky, Valentina, Schuler, Fabian, Fava, Luca, Villunger, Andreas (2017). The resurrection of the PIDDosome - Emerging roles in the DNA-damage response and centrosome surveillance. JOURNAL OF CELL SCIENCE, vol. 130, p. 3779-3787, ISSN: 0021-9533, doi: 10.1242/jcs.203448
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