

Curriculum Vitae

(Last update
March 16, 2018)

Eng. Filippo Piccinini, PhD

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Education

	Doctor Europaeus, PhD in Information Technology
Dates	University of Bologna, Italy, 1 st January 2010 – 31 st December 2012. ETH Zurich, Switzerland, 9 th May 2011 – 26 th August 2011, 7 th May 2012 – 8 th August 2012. Defence: 19 th April 2013. Graduation Ceremony: 21 st June 2013.
Thesis title	Solutions to common issues in widefield microscopy: vignetting, mosaicing and depth of focus.
Supervisors	Prof. Alessandro Bevilacqua (University of Bologna), Prof. Mauro Ursino (University of Bologna), Prof. Peter Horvath (ETH Zurich)
Financing	3-year-study ministerial grant and ETH Zurich grant.
	Master Degree in Biomedical Engineering, 110/110 cum LAUDE (average score pre-degree: 29.9/30)
Dates	University of Bologna, Italy, September 2007 – October 2009. Defence: 14 th October 2009.
Thesis title	Algorithm for building mosaics of partially overlapping images regarding adherent live stem cells.
Supervisor	Prof. Alessandro Bevilacqua.
	Bachelor Degree in Biomedical Engineering, 110/110 cum LAUDE (average score pre-degree: 29.1/30)
Dates	University of Bologna, Italy, September 2004 – July 2007. Defence: 25 th July 2007.
Thesis title	Numerical study of dual solutions in mixed convection with viscous dissipation in a vertical conduit.
Supervisor	Prof. Stefano Lazzari.
	High School Industrial Technical Diploma in Electronics and Telecommunications, 100/100
Dates	Faenza (RA), Italy, September 1999 – July 2004.

Current position

ADJUNCT PROFESSOR

University of Bologna
Faculty of Computer Science
Faculty of Economics, Management and Statistics

and

RESEARCH FELLOW

Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) IRCCS
Via P. Maroncelli 40, 47014, Meldola (FC), Italy
Cancer Research Hospital, Medical Physics Unit

Current research:

Cancer three-dimensional (3D) multicellular aggregates, typically known as spheroids, are *in vitro* models widely used for testing drugs and radiotherapy treatments. However, experiments using 3D models are jeopardized by the data reproducibility problem. We proved that a spheroid pre-selection, based on the spheroid morphology, is needed to obtain statistical relevant data. Accordingly, we developed open-source software tools capable of performing an automatic image analysis of the spheroids, to guide researchers in performing experiments based on 3D models. Finally, we proceeded in performing high-content screening experiments using 3D cell cultures, meanwhile designing customized software for the different analyses.

Major fields of research



MICROSCOPY
IMAGE PROCESSING
3D CELL CULTURES
MESENCHYMAL STROMAL CELLS
CELL SEGMENTATION AND TRACKING
MACHINE LEARNING
HIGH-CONTENT SCREENING

Research collaborations and experiences

	Adjunct Professor , University of Bologna, Italy.
Dates	June 8, 2017 – today.
	Post-doctoral research fellow , IRST- IRCCS Cancer Research Hospital, Italy.
Dates	February 13, 2017 – today.
	Post-doctoral research fellow , ARCES, University of Bologna, Italy.
Dates	April 20, 2013 – February 12 2017.
Supervisor	Prof. Alessandro Bevilacqua
	EACR Travel Fellowship , Hungarian Academy of Sciences, Szeged, Hungary.
Dates	May 1, 2017 – July 31, 2017.
Supervisor	Prof. Peter Horvath.
	FEBS Short-Term Fellowship , Hungarian Academy of Sciences, Szeged, Hungary.
Dates	April 1, 2016 – July 31, 2016.
Supervisor	Prof. Peter Horvath.
	EMBO Short-Term Fellowship , Hungarian Academy of Sciences, Szeged, Hungary.
Dates	May 17, 2015 – July 24, 2015.
Supervisor	Prof. Peter Horvath.
	Light Microscopy and Screening Center , ETH Zurich, Switzerland.
Dates	May 9, 2011 – August 26, 2011; May 7, 2012 – August 8, 2012.
Supervisor	Prof. Gábor Csúcs.
	Osteoarticular Regeneration Laboratory , Istituto Ortopedico Rizzoli, Bologna, Italy.
Dates	April 20, 2009 – December 31, 2015.

Supervisor	Dr. Enrico Lucarelli
	Laboratory of Biosciences, IRST- IRCCS, Meldola (FC), Italy.
Dates	July 6, 2010 – December 31, 2015.
Supervisor	Dr. Anna Tesei

Research projects

	I have been involved in the following research projects:
Project name	DYNAMO - 3D dynamic tumor models
Short description	Validation of new approaches based on automatic microscopic image analysis for in vitro therapeutic screening and for the characterization of the invasive behaviour of cancer cells.
Collaborating institutions	- Laboratory of Biosciences, IRST- IRCCS, Meldola (FC), Italy - Computer Vision Group, University of Bologna, Italy
Duration	January 2016 - today.
Project name	STAMINAL - Characterization of stem cells through support for automatic analysis of the microscopic images in pre-clinical therapy.
Short description	Development of software tools for the automatic analysis of stem cells and cancer cells, both in monolayer and multicellular spheroids.
Collaborating institutions	- Laboratory of Biosciences, IRST- IRCCS, Meldola (FC), Italy - Computer Vision Group, University of Bologna, Italy
Duration	January 2011 - December 2015.
Project name	ADVANCE - Automatic non-invasive system, based on high content analysis to detect and characterize vital mesenchymal stem cells in a spatio-temporal context.
Short description	Development of software tools for the automatic analysis of mesenchymal stem cells used in regenerative medicine for bone tissue applications.
Collaborating institutions	- Osteoarticular Regeneration Laboratory, Istituto Ortopedico Rizzoli (IOR), Bologna, Italy - Computer Vision Group, University of Bologna, Italy
Duration	January 2010 - December 2010.
Project name	CELLTRACKER – <i>In vitro</i> live cell tracking.
Short description	CellTracker, a free open-source software for tracking in 2D living cells. http://celltracker.website
Collaborating institutions	- Biological Image Analysis and Machine Learning Group, Biological Research Centre, Szeged, Hungary - Computer Vision Group, University of Bologna, Italy
Duration	Since May 2015.
Project name	ADVANCED CELL CLASSIFIER – Cell classification and analysis.
Short description	Advanced Cell Classifier, a free open-source software for classifying and analysing cells imaged in high content screening experiments. http://www.cellclassifier.org
Collaborating institutions	- Biological Image Analysis and Machine Learning Group, Biological Research Centre, Szeged, Hungary - Computer Vision Group, University of Bologna, Italy
Duration	Since April 2016.

Research groups, scientific associations and institutions



IRCCS Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) S.r.l., IRCCS, www.irst.emr.it Member since 2017.



Italian Mesenchymal Stem Cell Group (GISM), www.gismonline.it **Founder Member** since 2014.



Advanced Research Center on Electronic Systems "E. De Castro" (ARCES), University of Bologna, Italy. www.arces.unibo.it Member since 2010.



Computer Vision Group (CVG), University of Bologna, Italy. <http://cvg.deis.unibo.it> Member since 2010.



Italian Society of Biochemistry and Molecular Biology (SIB), www.biochimica.it Member since 2015.



Italian National Bioengineering Group (GNB), www.bioing.it Member since 2012.



Italian Association Cell Culture (ONLUS-AICC), www.onlus-aicc.org Member in 2013.



European Association
for Cancer Research

European Association for Cancer Research (EACR), www.eacr.org Member since 2015.



European Light Microscopy Initiative (ELMI), <http://elmi.embl.org/home> Member since 2016.



Network of European Bioimage Analysts (NEUBIAS), <http://eubias.org/NEUBIAS> Member since 2016

Honours and awards

Travel fellowship (3 months), granted by European Association for Cancer Research (EACR), Biological Research Centre, Szeged, Hungary. 2017 (2000 Euros).

Awarded by the **Marie Skłodowska-Curie Actions Seal of Excellence**, a quality label awarded to the proposals submitted to the MSCA Individual Fellowships Call that scored 85% or more (I obtained a score of 91.2%).

Winner of the local selection of FameLab 2017, the talking science international competition (Modena, 24th March 2017). The award is a 3-day course (all expenses paid!) with theatre directors, psychologists and famous public speakers for improving my public speaking, and the access to the national final.

Travel Award, granted by Italian Embassy in Seoul, South Korea, for visiting Universities/Institutes in Seoul to establish new collaborations, August 2016 (2000 Euros).

Travel Award, granted by Italian Society of Biochemistry and Molecular Biology (SIB), Biological Research Centre, Szeged, Hungary. July 2016 (1000 Euros)

Short-term fellowship (2 months), granted by Federation of European Biochemical Societies (FEBS), Biological Research Centre, Szeged, Hungary. 2016 (4000 Euros).

Candidate for the Award "Sapio Junior for the Italian Research" nominated by the Pro-Rector (teaching area) of the University of Bologna, Prof. Enrico Sangiorgi. Final ceremony: Palazzo Montecitorio, Roma, 16th March 2016.

Short-term fellowship (3 months), granted by European Molecular Biology Organization (EMBO), Biological Research Centre, Szeged, Hungary. 2015 (5000 Euros).

Best Oral Communication Award, granted by Italian Association Cell Culture (ONLUS-AICC) 2014. Awards ceremony held on the 14th November 2014, Verona, Italy (500 Euros)

Selected as the representative PhD student (scientific area) for the speech at the final ceremony of the PhD graduation (21st June 2013, Santa Lucia Church, Bologna). 1200 people, including 380 PhD students, were present.

Free conference registration grant, 1st International Conference Materials in Medicine (MiMe). 8th October 8-11, 2013. Faenza (RA), Italy.

Free conference registration grant, 8th World Conference on The Future of Science. September 16-18, 2012. Venezia, Italy.

Travel Award "Marco Polo 2011", granted by the University of Bologna, Light Microscopy and Screening Center, ETH Zurich, Switzerland. 2011 (3500 Euros)

Best Master Thesis Award "Mario Pasquini 2010", granted by the Marine & Freshwater Science Group Association Awards ceremony held on the 22nd June 2010, Savoia Hotel Regency of Bologna, Italy (2500 Euros)

Scholarship "F.I.D.A.", for university merits for the academic years 2004/2005 and from 2006/2007 to 2008/2009, granted by Fondo Integrativo Di Assistenza of Ravenna, Italy (2000 Euros).

Scholarship "Homo Sapiens Sapiens", for university merits for the academic year 2004/2005, granted by I.N.P.D.A.P. Rome, Italy, on the 7th November 2007 (1000 Euros).

Scholarship "F.I.D.A.", for school merits for the school years from 1999/2000 to 2002/2003, granted by Fondo Integrativo Di Assistenza of Ravenna, Italy (800 Euros).

Publication statistics

Peer reviewed scientific articles:	35
- Journal publications (with IF):	19
- Journal publications (without IF):	2
- Conference proceedings:	14
First author publications (in journals with IF):	13
Last author publications (in journals with IF):	2
Corresponding author publications (in journal with IF):	4
Total impact:	75.3590 IF
Average impact:	3.9663 IF
Total number of citations:	402
H-index:	11

Publications

International Journals (with official IF)

- 19 G. Gallerani, C. Cocchi, M. Bocchini, F. Piccinini, F. Fabbri. *Characterization of tumor cells using a medical wire for capturing circulating tumor cells: a 3D approach based on immunofluorescence and DNA FISH*. **Journal of Visualized Experiments**, 130:e56936, December 2017. DOI: 10.3791/56936.
- 18 C. Arienti, S. Pignatta, M. Zanoni, M. Cortesi, A. Zamagni, F. Piccinini, A. Tesei. *Looking for driver pathways of acquired resistance to targeted therapy: drug resistant subclone generation and sensitivity restoring by gene knock-down*. **Journal of Visualized Experiments**, 130:e56583, December 2017. DOI: 10.3791/56583.
- 17 F. Piccinini, A. Tesei, M. Zanoni, A. Bevilacqua, *ReViMS: Software tool for estimating the volumes of 3-D multicellular spheroids imaged using a light sheet fluorescence microscope*. **BioTechniques**, 63(5):227-229, November 2017. DOI: 10.2144/000114609.
- 16 S. Duchi*, F. Piccinini*, M. Pierini, A. Bevilacqua, M.L. Torre, E. Lucarelli, S. Santi, *A new holistic 3D non-invasive analysis of cellular distribution and motility on fibroin-alginate microcarriers using light sheet fluorescent microscopy*. **PLoS ONE**, 12(8):e0183336, August 2017. DOI: 10.1371/journal.pone.0183336.
- 15 F. Piccinini*, A. Tesei*, C. Arienti, A. Bevilacqua, *Cell counting and viability assessment of 2D and 3D cell cultures: expected reliability of the Trypan Blue assay*. **Biological Procedures Online**, 19(8), July 2017. DOI: 10.1186/s12575-017-0056-3.
- 14 F. Piccinini*, T. Balassa*, A. Szkalitsy, C. Molnar, L. Paavolainen, K. Kujala, K. Buzas, M. Sarazova, V. Pietiainen, U. Kutay, K. Smith, P. Horvath, *Advanced Cell Classifier: user-friendly machine-learning-based software for discovering phenotypes in high-content imaging data*. **Cell Systems**, 4(6):651–655, June 2017. DOI: 10.1016/j.cels.2017.05.012.
- 13 F. Piccinini, A. Tesei, A. Bevilacqua, *Single-image based methods used for non-invasive volume estimation of cancer spheroids: a practical assessing approach based on entry-level equipment*. **Computer Methods and Programs in Biomedicine**, 135: 51-60, October 2016. DOI: 10.1016/j.cmpb.2016.07.024. IF(2016): 2.503/Q1.

- 12 C. Bellotti, S. Duchi, A. Bevilacqua, E. Lucarelli, F. Piccinini, *Long term morphological characterization of Mesenchymal Stromal Cells 3D spheroids built with a rapid method based on entry-level equipment*. **Cytotechnology**, 68(6):2479-2490, December 2016. DOI: 10.1007/s10616-016-9969-y. IF(2016): 1.857/Q3.
- 11 M. Zanoni, F. Piccinini, C. Arienti, A. Zamagni, S. Santi, R. Polico, A. Bevilacqua, A. Tesei, *3D tumor spheroid models for in vitro therapeutic screening: a systematic approach to enhance the biological relevance of data obtained*. **Scientific Reports**, 6: 19103, January 2016. DOI: 10.1038/srep19103. IF(2016): 4.259/Q1.
- 10 F. Piccinini*, A. Kiss*, P. Horvath, *CellTracker (not only) for dummies*. **Bioinformatics**, 36(6): 955–957, March 2016. DOI: 10.1093/bioinformatics/btv686. IF(2016): 7.307/Q1.
- 9 K. Smith, Y. Li, F. Piccinini, G. Csucs, C. Balazs, A. Bevilacqua, P. Horvath, *CIDRE: an illumination-correction method for optical microscopy*. **Nature Methods**, 12(5): 404-406, May 2015. DOI: 10.1038/nmeth.3323. IF(2015): 25.328/Q1.
- 8 F. Piccinini, *AnaSP: a software suite for automatic image analysis of multicellular spheroids*. **Computer Methods and Programs in Biomedicine**, 119(1): 43–52, April 2015. DOI: 10.1016/j.cmpb.2015.02.006. IF(2015): 25.328/Q1.
- 7 F. Piccinini, A. Tesei, C. Arienti, A. Bevilacqua, *Cancer multicellular spheroids: Volume assessment from a single 2D projection*. **Computer Methods and Programs in Biomedicine**, 118(2): 95–106, February 2015. DOI: 10.1016/j.cmpb.2014.12.003. IF(2015): 1.862/Q1.
- 6 F. Piccinini, A. Tesei, G. Paganelli, W. Zoli, A. Bevilacqua, *Improving reliability of live/dead cell counting through automated image mosaicing*. **Computer Methods and Programs in Biomedicine**, 117(3):448-463, December 2014. DOI: 10.1016/j.cmpb.2014.09.004. IF(2014): 1.897/Q1.
- 5 F. Piccinini, M. Pierini, E. Lucarelli, A. Bevilacqua, *Semi-quantitative monitoring of confluence of adherent mesenchymal stromal cells on calcium-phosphate granules by using widefield microscopy images*. **Journal of Materials Science: Materials in Medicine**, 25(10):2395-2410, October 2014. DOI: 10.1007/s10856-014-5242-0. IF(2014): 2.587/Q2.
- 4 F. Piccinini, E. Lucarelli, A. Gherardi, A. Bevilacqua, *Automated image mosaics by non-automated light microscopes: the MicroMos software tool*. **Journal of Microscopy**, 252(3):226-250, December 2013. DOI: 10.1111/jmi.12084. IF(2013): 2.150/Q2.
- 3 Z. Bulj, S. Duchi, A. Bevilacqua, A. Gherardi, B. Dozza, F. Piccinini, G. A. Mariani, E. Lucarelli, S. Giannini, D. Donati, S. Marmiroli, *Protein kinase B/AKT isoform 2 drives migration of human mesenchymal stem cells*. **International Journal of Oncology**, 42(1):118-126, January 2013. DOI: 10.3892/ijo.2012.1700. IF(2013): 2.773/Q2.
- 2 F. Piccinini, A. Tesei, W. Zoli, A. Bevilacqua, *Extended depth of focus in optical microscopy: assessment of existing methods and a new proposal*. **Microscopy Research and Technique**, 15(11):1582-1592, December 2012. DOI: 10.1002/jemt.22104. IF(2012): 1.593/Q2.
- 1 F. Piccinini, E. Lucarelli, A. Gherardi, A. Bevilacqua, *Multi-image based method to correct vignetting effect in light microscopy images*. **Journal of Microscopy**, 248(1):6-22, October 2012. DOI: 10.1111/j.1365-2818.2012.03645.x. IF(2012): 1.633/Q3.
- 2 A. Carbonaro, F. Piccinini, R. Reda. *Integrating heterogeneous data of healthcare devices to enable domain data management*. **Journal of e-Learning and Knowledge Society**, 14(1):45-56, January 2018. DOI: 10.20368/1971-8829/1450. ISSN: 1826-6223
- 1 F. Piccinini, A. Tesei, W. Zoli, A. Bevilacqua, *Extending the Universal Quality Index to assess N-image fusion in light microscopy*. **International Journal of Bioelectromagnetism**, 14(4):217-222, December 2012. ISSN: 1456-7857

International Journals
(without official IF)

International Conference
Proceedings

- 14 R. Reda, F. Piccinini, A. Carbonaro, *Towards consistent data representation in the IoT healthcare landscape*. In Proceedings of the 8th International Digital Health Conference (DH'18), Lyon, France, April 23-26, 2018, pp. 1-6
- 13 F. Piccinini, A. Tesei, W. Zoli, A. Bevilacqua, *Image processing method for 3D volume rendering from one 2D projection: application to cancer spheroid*. In Proceedings of the 4th IEEE International Conference on Image Processing Theory, Tools and Applications (IPTA), Paris, France, October 14-17, 2014, pp. 105-110
- 12 F. Piccinini, A. Bevilacqua, K. Smith, P. Horvath, *Vignetting and photo-bleaching correction in automated fluorescence microscopy from an array of overlapping images*. In Proceedings of the 10th IEEE International Symposium on Biomedical Imaging (ISBI), San Francisco, CA, USA, April 7-11, 2013, pp. 464-467
- 11 A. Bevilacqua, F. Piccinini, *Is an empty field the best reference to correct vignetting in microscopy?* In Proceedings of the 7th International Workshop on Biosignal Interpretation (BSI), Como, Italy, July 2-4, 2012, pp. 267-270
- 10 F. Piccinini, A. Tesei, W. Zoli, L. Carozza, D. Pollini and A. Bevilacqua, *Extending the Universal Quality Index to assess N-image fusion in optical microscopy*. In Proceedings of the 7th International Workshop on Biosignal Interpretation (BSI), Como, Italy, July 2-4, 2012, pp. 259-262
- 9 L. Carozza, A. Bevilacqua, F. Piccinini, *Mosaicing of optical microscope imagery based on visual information*. In Proceedings of the 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS), Boston, USA, August 30 – September 3, 2011, pp. 6162-6165
- 8 A. Bevilacqua, F. Piccinini, A. Gherardi, *Vignetting correction by exploiting an optical microscopy image sequence*. In Proceedings of the 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS), Boston, USA, August 30 – September 3, 2011, pp. 6166-6169
- 7 A. Gherardi, A. Bevilacqua, F. Piccinini, *Illumination field estimation through background detection in optical microscopy*. In Proceedings of the 8th annual IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB), Paris, France, April 11-15, 2011, pp. 49-54
- 6 L. Carozza, A. Bevilacqua, F. Piccinini, *An incremental method for mosaicing of optical microscope imagery*. In Proceedings of the 8th annual IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB), Paris, France, April 11-15, 2011, pp. 55-60
- 5 A. Bevilacqua, A. Gherardi, F. Piccinini, *Multichannel image mosaicing of stem cells*. In Proceedings of the International Conference on Biological Science and Engineering (ICBSE), Venice, Italy, November 24-26, 2010, pp. 271-274
- 4 A. Bevilacqua, A. Gherardi, L. Carozza, F. Piccinini, *Semi-automatic background detection in microscopic images*. In Proceedings of the International Conference on Biological Science and Engineering (ICBSE), Venice, Italy, November 24-26, 2010, pp. 275-278
- 3 A. Bevilacqua, A. Gherardi, F. Piccinini, *On-line image mosaicing of live stem cells*. In Proceedings of the International Conference on Biological Science and Engineering (ICBSE), Venice, Italy, November 24-26, 2010, pp. 279-282
- 2 A. Bevilacqua, A. Gherardi, F. Piccinini, *Quantitative quality assessment of microscopic image mosaicing*. In Proceedings of the International Conference on Biological Science and Engineering (ICBSE), Venice, Italy, November 24-26, 2010, pp. 283-286
- 1 S. Lazzari, A. Barletta, E. Magyari, F. Piccinini, *Dual solutions for viscous mixed convection flows in a vertical circular duct: a numerical benchmark*. In Proceedings of the European Comsol Conference 2007, Grenoble (Paris), France, October 23-24, 2007, pp. 343-349
- 4 M. Zanoni, F. Piccinini, C. Arienti, A. Zamagni, S. Santi, A. Bevilacqua, A. Tesei, *Simple strategies to increase the biological significance of a cytotoxic test based on 3D cell cultures*. 2nd EACR conference Goodbye Flat Biology, Berlin, Germany, October 2-5, 2016
- 3 F. Piccinini, A. Tesei, C. Arienti, S. Duchi, A. Bevilacqua, *Cell proliferation in 3D cancer spheroids: Volume assessment and 3D reconstruction from a single 2D projection*. 5th International Satellite Symposium Italian Mesenchymal Stem Cell Group (GISM), Verona, Italy, November 12-14, 2014

Abstracts and Posters at
International Conferences

Abstracts and Posters at National Conferences

- 2 F. Piccinini, M. Pierini, E. Lucarelli, A. Bevilacqua, *Extending the field of view microscope's camera using a video of images*. Materials in Medicine International Conference (MiMe), Faenza (RA), Italy, October 8-11, 2013
- 1 A. Bevilacqua, W. Zoli, F. Piccinini, A. Tesei, *Extension of the Microscope's Depth of Focus*. 2nd International Conference Translational Research in Oncology: a New Approach to Personalized Medicine, Forlì, Italy, May 8-11, 2012
- 10 F. Piccinini, E. Lucarelli, A. Bevilacqua, *MicroMos: an open source software tool to obtain high-resolution panoramic images of 2D cell cultures*. Annual meeting of the Italian Mesenchymal Stem Cell Group (GISM), Brescia, Italy, October 20-21, 2016 (pag. 42)
- 9 A. Bevilacqua, F. Piccinini, M. Zanoni, A. Tesei, *Comparison of methods to generate multicellular spheroids with characteristics compliant with 3D high-content screening experiments*. Annual meeting of the Italian Mesenchymal Stem Cell Group (GISM), Brescia, Italy, October 20-21, 2016 (pag. 66)
- 8 F. Piccinini, C. Bellotti, S. Duchi, E. Lucarelli, A. Bevilacqua, *Over time homogeneity and stability of mesenchymal stromal cells 3D spheroids built using base-level laboratory equipment*. Annual meeting of the Italian Mesenchymal Stem Cell Group (GISM), Brescia, Italy, October 8-9, 2015
- 7 F. Piccinini, S. Duchi, E. Martella, G. Alessandri, E. Lucarelli, A. Bevilacqua, *In vitro quantitative analysis of mesenchymal stromal cells migration towards tumours*. Annual meeting of the Italian Mesenchymal Stem Cell Group (GISM), Brescia, Italy, October 8-9, 2015
- 6 F. Piccinini, M. Zanoni, A. Bevilacqua, A. Tesei, *Shape-based viability of 3D multicellular spheroids*. Annual meeting of the Italian Mesenchymal Stem Cell Group (GISM), Brescia, Italy, October 8-9, 2015
- 5 F. Piccinini, I. De Santis, D. Angeli, A. Bevilacqua, *AnaSP: a software suite to automatically analyse spheroid used in high throughput experiments*. 27th annual conference Italian Association Cell Culture (ONLUS-AICC), Verona, Italy, November 12-14, 2014
- 4 F. Piccinini, D. Angeli, I. De Santis, A. Tesei, C. Arienti, A. Bevilacqua, *Cell viability and culture population: Statistical analysis of precision of Trypan Blue assay*. 27th annual conference Italian Association Cell Culture (ONLUS-AICC), Verona, Italy, November 12-14, 2014
- 3 F. Piccinini, A. Tesei, W. Zoli, A. Bevilacqua, *Cancer multicellular aggregates: volume reconstruction from a single 2D projection*. 4th Congress Italian National Bioengineering Group (GNB 2014), Pavia, Italy, June 25-27, 2014
- 2 F. Piccinini, A. Tesei, G. Paganelli, W. Zoli, A. Bevilacqua, *GridMos: a fully-automatic mosaicing method for improving precision and repeatability of manual cell counting*. 26th annual conference Italian Association Cell Culture (ONLUS-AICC), Brescia, Italy, November 20-22, 2013
- 1 F. Piccinini, M. Pierini, E. Lucarelli, A. Bevilacqua, *Semi-quantitative monitoring of adhesion of mesenchymal stromal cells on calcium-phosphate granules through a computer vision system*. 26th annual congress Italian Association Cell Culture (ONLUS-AICC), Brescia, Italy, November 20-22, 2013

Invited presentations

- 6 *Image processing tools and software applications to improve the research output in Biology and Microscopy*. IRCCS Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (I.R.S.T.) S.r.l., 21st February 2017, Meldola (FC), Italy.
- 5 *Quantitative microscopy using 3D multicellular spheroids: generation, imaging, and analysis*. Presentations sponsored by the Italian Embassy in Seoul, South Korea. 30th August 2016 to Samsung Medical Center, 31st August 2016 to Yonsei University, 02nd September 2016 to Medicinal Bioconvergence Research Center, Seoul, South Korea.
- 4 *Over time homogeneity and stability of mesenchymal stromal cells 3D spheroids built using base-level laboratory equipment*. Annual meeting of the Italian Mesenchymal Stem Cell Group (GISM). 8th October 2015. Brescia, Italy.

- 3 *Cell proliferation in 3D cancer spheroids: volume assessment and 3D reconstruction from a single 2D projection*. 27th annual congress Italian Association Cell Culture (ONLUS-AICC). 14th November 2014. Verona, Italy.
- 2 *Image processing method for 3D volume rendering from one 2D projection: application to cancer spheroids*. 4th IEEE International Conference on Image Processing Theory, Tools and Applications (IPTA). 15th October 2014. Paris, France.
- 1 *Extending the field of view microscope's camera using a video of images*. 1st International Conference Materials in Medicine (MiMe). 8th October 2013. Faenza (RA), Italy.

Commissions of trust

Editorial Board member

Pharmaceutical Sciences And Biomedical Analysis Journal, Scientific Literature,
Member since 01/09/2017
<http://scientificliterature.org/pharmaceutical-sciences-editorial-board.html>

Current Updates in Stem Cell Research and Therapy, OPR Science,
Member since 01/02/2017
<http://oprscience.com/department/current-updates-in-stem-cell-research-and-therapy/>

Biomedical Statistics and Informatics, Science Publishing Group,
Member since 28/11/2016
<http://www.sciencepublishinggroup.com/j/bsi>

SL Clinical And Medical Oncology, Scientific Literature,
Member since 01/11/2016
<http://www.scientificliterature.org/oncology-editorial-board.html#>

Reviewer for

Analytical Biochemistry: Methods in the Biological Sciences, Elsevier, ISSN: 0003-2697

ASSAY and Drug Development Technologies, Mary Ann Liebert, Inc., ISSN:1540-658X

Biomedical Signal Processing and Control (BSPC), Elsevier. ISSN:1746-8094

J. of Biomaterials and Tissue Engineering (JBT), American Scientific Publishers, ISSN:2157-9083

Biological Procedures Online, BioMed Central, ISSN: 1480-9222

Micron, Elsevier. ISSN:0968-4328

Microscopy Research and Technique (MRT), John Wiley & Sons, Inc. ISSN:1097-0029

Signal, Image and Video Processing (SIVP), Springer. ISSN:1863-1711

Artificial Intelligence in Medicine, Elsevier, ISSN:0933-3657

Organisation of conferences/congresses/meetings

3rd National School of Microscopy, October 12-14, 2016, Orthopaedic Rizzoli Institute, Bologna, Italy (www.scuoladimicroscopia.it)

2nd Italian Mesenchymal Stem Cell Group annual meeting, October 20-21, 2016, Centre Pastorale Paolo VI, Brescia, Italy (www.gismonline.it)

1nd Italian Mesenchymal Stem Cell Group annual meeting, October 8-9, 2015, Centre Pastorale Paolo VI, Brescia, Italy (www.gismonline.it)

Teaching activities

Teaching	Adjunct Professor of the course: 76528 - Laboratory of Computer Programming (official teaching language: English), Faculty of Economics, Management and Statistics - Bologna, University of Bologna,
Date	Academic year 2017/2018, third cycle, first year, master degree.
Notes	Programming language used: Python.
Teaching	Adjunct Professor of the course: 00819 - Programming (A-L) (Module 2), Faculty of Computer Science - Cesena, University of Bologna,
Date	Academic year 2017/2018, first cycle, first year, bachelor degree.
Notes	Programming language used: C.
Teaching Assistant	Tutor of the course: Informatics, Faculty of Economics, Management and Statistics - Forlì, University of Bologna, Prof. Mauro Gaspari.
Date	Academic year 2017/2018, first cycle, first year, bachelor degree.
Teaching Assistant	Tutor of the course: Informatics, Faculty of Economics, Management and Statistics - Forlì, University of Bologna, Prof. Mauro Gaspari.
Date	Academic year 2016/2017, first cycle, first year, bachelor degree.
Teaching Assistant	Tutor of the course: Informatics, Mechanical Engineering - Bologna, University of Bologna, Prof. Ruben Scardovelli.
Date	Academic year 2016/2017, first cycle, second year, bachelor degree.
Notes	Programming language used: C.
Teaching Assistant	Tutor of the course: Informatics, Mechanical Engineering - Bologna, University of Bologna, Prof. Ruben Scardovelli.
Date	Academic year 2015/2016, first cycle, second year, bachelor degree.
Notes	Programming language used: C.
Teaching Assistant	Tutor of the course: Informatics, Mechanical Engineering - Bologna, University of Bologna, Prof. Jorge Eduardo Fernandez.
Date	Academic year 2015/2016, first cycle, second year, bachelor degree.
Notes	Programming language used: FORTRAN.
Teaching Assistant	Tutor DM198/2003, Biomedical Engineering - Cesena, University of Bologna.
Date	Academic year 2008/2009.
Notes	200 hours of assistance in teaching activities for courses without dedicated tutors.
High school teaching	Public secondary school teacher.
Dates	Several substitutions in the period 2005 – 2013.
Notes	Teacher in several high school institutes for laboratory of the following courses: Physics, Chemistry, Mathematics, Informatics, Electronics, Electrotechnics.
Co-supervisor of thesis works	
10	Roberto Reda, University of Bologna, School of Computer Sciences, MS thesis, title: A semantic web approach to ontology-based system: integrating, sharing and analysing IOT health and fitness data. Supervisor: Antonella Carbonaro. Co-supervisors: Filippo Piccinini. Final score: 110 cum Laude. Thesis defence: 15 th December 2017

- 9 Ilaria De Santis, University of Bologna, School of Biological Sciences, BS thesis, title: Confronto di sistemi per creazione *in vitro* di aggregati multicellulari tumorali: analisi bio-statistica. Supervisor: Fulvia Farabegoli. Co-supervisors: Alessandro Bevilacqua, Anna Tesei, Filippo Piccinini. Final score: 110 cum Laude. Thesis defence: 16th July 2014
- 8 Angeli Davide, University of Bologna, School of Biological Sciences, BS thesis, title: Sferoidi multicellulari creati *in vitro* via bioreattore: studio a breve e medio termine della omogeneità. Supervisor: Fulvia Farabegoli. Co-supervisors: Alessandro Bevilacqua, Wainer Zoli, Filippo Piccinini. Final score: 110 cum Laude. Thesis defence: 16th July 2014
- 7 Luigi Caiffa, University of Bologna, Faculty of Biomedical Engineering, MS thesis, title: Studio di classi di sferoidi multicellulari di carcinoma polmonare epidermoidale in radiobiologia. Supervisor: Alessandro Bevilacqua. Co-supervisors: Filippo Piccinini, Anna Tesei, Rolando Polico. Thesis defence: 21st March 2013
- 6 Ilaria Fantigrossi, University of Bologna, Faculty of Biomedical Engineering, BS thesis, title: Analisi temporale di caratteristiche morfometriche estratte da immagini di broncosfere sottoposte a differenti trattamenti radiobiologici. Supervisor: Alessandro Bevilacqua. Co-supervisors: Filippo Piccinini, Anna Tesei, Rolando Polico. Thesis defence: 11th October 2012
- 5 Andrea Giorni, University of Bologna, Faculty of Biomedical Engineering, MS thesis, title: Misure di segnali fluorescenti per l'analisi in microscopia dell'espressione genica in biologia sintetica. Supervisor: Emanuele Domenico Giordano. Co-supervisors: Alessandro Bevilacqua, Alessandro Gherardi, Filippo Piccinini, Francesca Ceroni. Thesis defence: 28th March 2012
- 4 Marco Marchetti, University of Bologna, Faculty of Biomedical Engineering, MS thesis, title: Segmentazione automatica di regioni in immagini istologiche. Supervisor: Alessandro Bevilacqua. Co-supervisors: Alessandro Gherardi, Filippo Piccinini, Wainer Zoli. Thesis defence: 28th March 2012
- 3 Davide Pollini, University of Bologna, Faculty of Biomedical Engineering, MS thesis, title: Ricostruzione di immagini di broncosfere in microscopia ottica con tecniche di estensione della profondità di fuoco. Supervisor: Alessandro Bevilacqua. Co-supervisors: Filippo Piccinini, Anna Tesei. Final score: 110 cum Laude. Thesis defence: 28th March 2012
- 2 Alessandro Cedioli, University of Bologna, Faculty of Biomedical Engineering, BS thesis, title: Acquisizione di immagini di broncosfere in radiobiologia. Supervisor: Alessandro Bevilacqua. Co-supervisors: Filippo Piccinini, Anna Tesei. Thesis defence: 28th March 2012
- 1 Carlo Busa, University of Bologna, Faculty of Informatics Engineering, MS thesis, title: Automatic detection of cancerous regions in histopathological images. Supervisor: Riccardo Rovatti. Co-supervisors: Alessandro Bevilacqua, Sara Bravaccini, Filippo Piccinini. Final score: 110 cum Laude. Thesis defence: 19th December 2011

Seminars and presentations

- 8 Title: "How to write a scientific article". Date: 11/05/2016. Audience: Researchers of Biological Image Analysis and Machine Learning Group (BIOMAG), Biological and Research Centre, Hungarian Academy of Sciences. Location: Szeged, Hungary. Time: 60 min. Invitation from: Prof. Peter Horvath.
- 7 Title: "The right microscope for the right sample". Date: 01/12/2015. Audience: Master students of the course BioChemistry, Biomedical Engineering. Location: School of Engineering, Cesena, University of Bologna. Time: 3 h. Invitation from: Prof. Emanuele Giordano.
- 6 Title: "Microscope limits and 3D cell cultures". Date: 21/05/2011. Audience: Researchers of Biological and Research Centre, Hungarian Academy of Sciences. Location: Szeged, Hungary. Time: 30 min. Invitation from: Prof. Peter Horvath.
- 5 Title: "The right microscope for the right sample". Date: 27/11/2014. Audience: Master students of the course BioChemistry, Biomedical Engineering. Location: School of Engineering, Cesena, University of Bologna. Time: 2 h. Invitation from: Prof. Emanuele Giordano.
- 4 Title: "Solutions to common issues in widefield microscopy: vignetting, mosaicing and depth of focus". Date: 14/05/2013. Audience: PhD Students in BioEngineering. Location: School of Engineering, Cesena, University of Bologna. Time: 1 h. Invitation from: Prof. Stefano Severi.
- 3 Title: "Some selected research activities". Date: 10/05/2011. Audience: Researchers of Light Microscopy and Screening Center, ETH Zurich, Switzerland. Location: ETH Zurich. Time: 1 h. Invitation from: Prof. Peter Horvath.

- 2 Title: "PET and SPECT". Date: 01/04/2011. Audience: Master students of the course BiolImages, Biomedical Engineering. Location: School of Engineering, Cesena, University of Bologna. Time: 1 h. Invitation from: Prof. Alessandro Bevilacqua.
- 1 Title: "What kind of microscope?". Date: 25/03/2011. Audience: Master students of the course BiolImages, Biomedical Engineering. Location: School of Engineering, Cesena, University of Bologna. Time: 1 h. Invitation from: Prof. Alessandro Bevilacqua.

Software tools developed and freely available

For programming I typically use one of the following languages: MATLAB, FORTRAN, C/C++, JAVA.

- CellTracker**, for tracking in 2D cells cultured *in vitro*
<http://celltracker.website>
- F-Tracker3D**, for tracking in 3D fluorescent particles imaged with a confocal/light-sheet microscope
<http://sourceforge.net/p/f-tracker3d>
- Advanced Cell Classifier**, for classifying cells in high-content screening images
<http://www.cellclassifier.org>
- CIDRE**, for correcting the illumination field of microscopy images
<http://www.nature.com/nmeth/journal/v12/n5/full/nmeth.3323.html>
- MicroMos**, for building a panorama, starting from a set of overlapping images
<http://www.filippopiccinini.it/Mosaicing/index.html>
- ReViMS**, for cancer spheroids Reconstruction and Visualization using Multiple Sections
<http://sourceforge.net/projects/revims>
- ReViSP**, for cancer spheroids Reconstruction and Visualization using a Single Projection
<http://sourceforge.net/projects/revisp>
- AnaSP**, software suite to segment brightfield images of multicellular spheroids
<http://sourceforge.net/projects/anasp>

English courses attended

- | | |
|--------------|-----------------------------------------------------------------------------------|
| | Intensive personalized one-to-one English course in England. |
| Dates | June 9-15, 2013 (5 hours of lesson one-to-one a day per 5 days). |
| Organisation | English School: "Best In Bath". Accredited by the British Council. Bath, England. |
| | English Course in Switzerland, Level C1 – Advanced User. |
| Dates | May 23, 2011 - July 11, 2011 (14 lessons of 2 hours each). |
| Organisation | Klubschule Migros, Private Language Centre, Zurich, Switzerland. |
| | English Course in Italy, B2 – Independent User. |
| Dates | September 27, 2010 - December 6, 2010. |
| Organisation | CLIRO, University Language Centre, Cesena (FC), Italy. |
| | University exam, B2 – Independent User. |

Date	March 20, 2007.
Organisation	Biomedical Engineering, University of Bologna, Cesena (FC), Italy.
	English Course in England, B2 – Independent User.
Dates	June 30, 2002 - July 13, 2002.
Organisation	EF Language Travel, London, England.
	English Course in England, A1 – Basic User.
Dates	July 26, 1999 - August 9, 1999.
Organisation	The British Council, London, England.

Conferences and courses

	FameLab 2017 intensive course for improving the public speaking of the 20 Italian finalists
Dates	April 7–9, 2017.
Location	POST (Perugia Workshop of Science and Technology), Perugia, Italy.
	4th International Conference Translational Research in Oncology and 1st Multidisciplinary Osteoncology School
Dates	November 11–12, 2016.
Location	IRST- IRCCS, Meldola, Italy.
	Annual meeting of the Italian Mesenchymal Stem Cell Group (GISM).
Dates	October 20-21, 2016.
Location	Brescia, Italy.
Notes	Two works in form of posters.
	3rd Italian School of Microscopy.
Dates	October 12-14, 2016.
Location	Orthopaedic Rizzoli Institute, Bologna, Italy
Notes	Sponsored by Nikon. Main topic: super resolution. I was in the organization committee .
	Guest researcher to the Leica Microscopy Center
Dates	September 18-19, 2016.
Location	Mannheim, Baden-Württemberg, Germany.
Notes	Invited to test the Leica Light Sheet Microscope with our 3D cancer spheroids.
	Guest researcher to the Carl ZEISS MICROSCOPY GmbH
Dates	March 3-4, 2016.
Location	Munich, Bavaria, Germany.
Notes	Invited to test the Zeiss Light Sheet Microscope with our 3D cancer spheroids.
	Annual meeting of the Italian Mesenchymal Stem Cell Group (GISM).
Dates	October 8-9, 2015.
Location	Brescia, Italy.
Notes	Oral Communication , and three works in form of posters.

	XXXIV annual school of Bio-engineering.
Dates	September 21-24, 2015.
Location	Bressanone (BZ), Italy.
	27th annual congress Italian Association Cell Culture (ONLUS-AICC) & 5th International Satellite Italian Mesenchymal Stem Cell Group (GISM).
Dates	November 12-14, 2014.
Location	Verona, Italy.
Notes	Oral Communication , and three works in form of posters.
	4th IEEE International Conference on Image Processing Theory, Tools and Applications (IPTA 2014).
Dates	October 14-17, 2014.
Location	Paris, France.
Notes	Oral Communication.
	4th Congress Gruppo Nazionale Bioingegneria (GNB 2014).
Dates	June 25-27, 2014.
Location	Pavia, Italy.
Notes	I presented one work in form of a poster.
	1st Italian School of Microscopy.
Dates	March 5-7, 2014.
Location	Orthopaedic Rizzoli Institute, Bologna, Italy
Notes	Sponsored by Nikon. Main topic: live imaging.
	26th annual congress Italian Association Cell Culture (ONLUS-AICC) & 4th International Satellite Italian Mesenchymal Stem Cell Group (GISM).
Dates	November 20-22, 2013.
Location	Brescia, Italy.
Notes	I presented two works in form of a poster.
	1st International Conference MiMe-Materials in Medicine.
Dates	October 8-11, 2013.
Location	Faenza, Ravenna, Italy.
Financing	Grant financed by CNR and ISTEC-Faenza, Italy.
Notes	Oral Communication
	8th World Conference on The Future of Science. Nanoscience Society, Fondazione Umberto Veronesi.
Dates	September 16-18, 2012.
Location	Venezia, Italy.
Financing	Granted by the University of Bologna, Italy.
	33rd annual IEEE international conference Engineering in Medicine and Biology Society (EMBS 2011).
Dates	August 30, 2011 - September 3, 2011.
Location	Boston, Massachusetts, USA.
Notes	I presented two works in form of posters.

	IEEE SSCI Conference, symposium on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB 2011).
Dates	April 11-15, 2011.
Location	Paris, France.
Notes	I presented two works in form of posters.
	CIMST 2010 Interdisciplinary Summer School on Bio-medical Imaging.
Dates	September 6-17, 2010.
Location	Swiss Federal Institute of Technology Zurich (ETH), Zurich Center for Imaging Science and Technology (CIMST), Zurich, Switzerland.
Notes	Only 50 selected participants were admitted to attend the summer school. I presented one work in form of a poster.
	ICVSS 2010 International Computer Vision Summer School.
Dates	July 12-17, 2010.
Location	University of Catania, Scicli (Ragusa), Italy.
Notes	I presented one work in form of a poster.

Other experiences

	International FameLab talking science competition 2017.
Date	24 th March 2017
Score	Winner of the local selection (10 candidates)!
Main activity	International competition with seminars with theatre directors, psychologists and famous public speakers to learn how to speak in front of a public.
Organization	FameLab Italy (http://www.famelab-italy.it)
	International FameLab talking science competition 2015.
Dates	4 th March 2015 seminars and 11 th March 2015 pre-selection and local final.
Score	Selected as one of the 10 local finalists (36 candidates).
Main activity	International competition with seminars with theatre directors, psychologists and famous public speakers to learn how to speak in front of a public.
Organization	FameLab Italy (website: http://famelabbo.bo.imm.cnr.it)
	Biomedical Engineer Trainee.
Dates	April 20, 2009 - May 22, 2009.
Main activity	Development of techniques for image acquisition and processing; assessment of the quality of several cell counters.
Organization	Bone Regeneration Laboratory, Istituto Ortopedico Rizzoli, Bologna, Italy.
Supervisors	Prof. Alessandro Bevilacqua and Dr. Enrico Lucarelli.
	Electrician Trainee.
Dates	July 5, 2003 - July 19, 2003.
Main activity	Maintenance of electrical panels.
Organization	Alfing Kessler Sondermaschinen, Aalen, Germany.

Local show presenter and public event planner

Presenter	Show "Faenza Rock Festival 2008", Faenza (RA), Italy
Presenter	Show "Pisciniadi 2009: funny water games competition", Tontola (FC), Italy
Presenter	Show "Pisciniadi 2008: funny water games competition", Tontola (FC), Italy
Presenter	Show "Pisciniadi 2007: funny water games competition", Faenza (RA), Italy
Presenter	Show "Pisciniadi 2006: funny water games competition", Faenza (RA), Italy
Event planner	Summer season 2009, Disco-club Indie, Cervia (RA), Italy
Event planner	Summer season 2008, Disco-club Panighina, Cesena, Italy
Event planner	Winter season 2008, Disco-club Click-Rock, Forlì, Italy
Event planner	Winter season 2007, Disco-club Click-Rock, Forlì, Italy
Event planner	Winter season 2006, Disco-club Click-Rock, Forlì, Italy

Recommendations

- Prof. Alessandro Bevilacqua. Professor of Informatics, Bio-image processing, Image processing. Leader of the research group "Computer Vision Group (CVG)", University of Bologna. Supervisor of my PhD and my master thesis. Email: alessandro.bevilacqua@unibo.it. Phones: +390512095409
- Prof. Mauro Ursino. Programme Director of the First Degree and the Master Degree in Biomedical Engineering, University of Bologna. Professor of Neural Networks, University of Bologna. Co-Supervisor of my PhD and my master thesis. Email: mauro.ursino@unibo.it. Phones: +390512093073
- Prof. Peter Horvath. Professor of Image processing. Leader of the research group "Biological Image Analysis and Machine Learning Group (BIOMAG)", Biological Research Centre (BRC), Hungarian Academy of Sciences, Szeged, Hungary. Supervisor of my research activities during my stays in ETH Zurich and BRC Szeged. Email: horvath.peter@brc.mta.hu. Phone: +3662599654
- Prof. Kevin Smith. Professor of Image processing. KTH Royal Institute of Technology, School of Computer Science and Communication, Stockholm, Sweden. Co-supervisor of my research activities during my stays in ETH Zurich. Email: ksmith@kth.se. Phone: +46852481246
- Dr. Gábor Csúcs. Director of the Light Microscopy and Screening Center, ETH, Zurich, Switzerland. He provided me with a 7-month grant for the period spent in his Center, happily ended in a shared publication in Nature Methods. Email: csucs@lmc.biol.ethz.ch. Phone: +41446336221
- Dr. Enrico Lucarelli. Director of the Bone Regeneration Laboratory, Istituto Ortopedico Rizzoli, Bologna, Italy. Coordinator and Secretary of the Gruppo Italiano Staminali Mesenchimali (GISM). Referee of my trainee during the master thesis and co-supervisor of my master thesis. Email: enrico.lucarelli@ior.it. Phone: +390516366595
- Dr. Anna Tesei. Head of the Drug Discovery and Radiobiology Unit, Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST), IRCCS, Meldola (FC), Italy. Collaborator for many shared projects. Email: anna.tesei@irst.emr.it. Phone: +390543739227.
- Prof. Emanuele Giordano. Professor of Biochemistry, Director of the Laboratory of Cellular and Molecular Engineering "S. Cavalcanti", Faculty of Biomedical Engineering, University of Bologna. Collaborator for many shared projects. Email: emanuele.giordano@unibo.it. Phone: +390547339251.
- Prof. Stefano Lazzari. Professor of Fluid Dynamics, Technical Physics, Computational Term Fluid Dynamics, University of Bologna. Supervisor of my bachelor thesis. Email: stefano.lazzari@unibo.it. Phone: +390512093383.

Personal skills and competences

Competences in Biology	Wide experience in planning and managing biological experiments on monolayer and three-dimensional cell cultures. Practical abilities to conduct wetlab routine operations. I typically plan and lead personally the biological experiments of my research, assuming the responsibility of the outcome.
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Computer skills and competences	<p>I'm an expert user of MATLAB and HTML. Regular user of FORTRAN, C/C++, JAVA. Basis of PLC. I commonly use different CAD, simulation programs, advanced software and word processors: CIRCAD, COMSOL, LaTeX, GIMP, Adobe Illustrator.</p> <p>I am an expert user of many microscope programs and imaging processing tools: AxioVision (Zeiss), NIS-Elements (Nikon), MetaMorph (Molecular Devices), ImageXpress (Molecular Devices), CellProfiler, ImageJ.</p>
Internet skills and competences	<p>I have good competence in web design. I have built 4 websites for:</p> <ul style="list-style-type: none"> - Mesenchymal Stem cells Italian Group (www.gismonline.it) - CellTracker official webpage (www.celltracker.website) - Advanced Cell Classifier official webpage (www.cellclassifier.org) - myself (www.filippopiccinini.it) <p>To design websites I strongly suggest Joomla!</p>
Other skills and competences	<p>I was a football goalkeeper and I have many years of experience as a goalkeeper coach.</p> <p>I'm a latin salsa dancer and in my spare time I work as presenter of shows and local events. I love public speaking!</p>
Driving licences	B and A1 (experiences of left- and right-driving).

Additional information

www.filippopiccinini.it

I authorize the use and collection of my personal data according to the Art.13 of the Italian Legislative Decree n. 196/2003.

Bologna, 22-Mar-18

Filippo Piccinini