



Personal information

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Nationality(-ies)	italian
Date of birth	February 17, 1969
Gender	Male

Work Experience

(Jan 2002 – present)	<i>Research Director and Principal Investigator</i> at the Institute for Applied Computing (IAC), of the National Research Council of Italy (CNR), Rome;
(Apr 1997 – Mar 1998)	Information Technology and CAM support Engineer at ST-Microelectronics, IT facilities of the Power Bipolar Wafer Fab, Discrete and Standard IC's Group, Catania, Italy;

Education and Training

(Nov 2001 – Nov 2002)	Postdoc at the Institute for Medical Bio-Mathematics (IMBM). Bene Ataroth, Tel Aviv, Israel. Supervisor Zvia Agur;
(Mar 1998 – May 2001)	PhD in Scientific Computing at the University of Cologne, Germany. Supervisors Dietrich Stauffer, Reiner Schrader;
(Apr 1993 – July 1993)	Research Intern at the San Raffaele Scientific Institute, Milan, Italy;
(Oct 1987 – Jul 1993)	Bachelor: Graduated in Computer Science at the University of Milan, Italy. Supervisors Gianpiero Cattaneo, Franco Celada, Stefania Bandini;
(Aug 1991 - Dec 1991)	<i>Erasmus:</i> Computational Linguistic, University of Amsterdam, The Netherlands. Supervisors: Giovanni degli Antoni, Vincenzo Lo Cascio;

Research Activities

Research sectors	My research interests are mainly in computational biology. In particular my research areas include: mathematical biology, bioinformatics, immunological bioinformatics, mathematical modeling, simulation, complex systems, high performance computing, econophysics, pattern Recognition, neural networks, pattern recognition.
(Sep 2017 – Sep 2018)	Research Fellow at the Institute for Advanced Study (IAS), Universiteit van Amsterdam, The Netherlands
(Jan – Dec 2010)	Visiting Research Fellow, School of Computer Science, China University of Geosciences, Wuhan, Hubei, China;
(Jun 2001 – Jun 2002)	<i>Research fellow</i> at the Harvard Medical School, as part of Cell Biology's summer scholar program sponsored by the <i>Harvard - Armenise Foundation</i> , Boston, USA, Supervisors Mark Kirschner, Reinhard Heinrich;
(Nov 2000 – Jul 2001)	Research assistant position with teaching assignment at the Department of Computer Science of the University "La Sapienza", Rome, Italy;
(Feb – Mar 2001)	Research fellow of the group "The Science of Complexity" at the Center for Interdisciplinary Research (Zentrum für interdisziplinäre Forschung - ZIF) of the University of Bielefeld, Germany;

(Aug 1996)

Visiting research at the IBM Watson Research Center, Yorktown, NY (Supervisors: Phil E. Seiden, Franco Celada) and at the Molecular Biology department of the Princeton University, NJ, USA; (Supervisor: Martin Weighert)

Research Grants

(Jan 2020 - Dec 2025)

Principal Investigator (Task Package Leader). Horizon 2020 - IMI2 (Innovative Medicine Initiatives). Call identifier: H2020-JTI-IMI2-2018-15-two-stage Project ID: 853989 (2.5 Mln out of ~ 89 Mln€ total). **ERA4TB** – “EUROPEAN REGIMEN ACCELERATOR FOR TUBERCULOSIS”.

(Jan 2018 - Dec 2021)

Consultant. The Netherlands Organisation for Health Research and Development (De Nederlandse organisatie voor gezondheidsonderzoek en zorginnovatie, ZonMw). Preventieprogramma 5 - “Understanding fundamental causes and effects of socio- economic inequalities in health using a systems science approach”, Project number: 531003015.

(Sep 2017 - Jul 2021)

Consultant. National Institute of Health (NIH). Research Project - Cooperative Agreement (U01). Modular design of multiscale models, with an application to the innate immune response to fungal respiratory pathogens. Project number: 1U01EB024501-01.

(Jan 2019 – Dec 2022)

Principal Investigator (Work Package leader). Horizon 2020 - Research and Innovation Framework Programme Call identifier: FP6-2005-NEST-PATH, Contract No 043241 (~2 Mln€ total, 200 k€ CNR). **iPC** – “individualizedPaediatricCure: Cloud-based virtual-patient models for precision paediatric oncology”.

(Apr 2016 - Apr 2020)

Management Committee (MC) Member. European framework CA - Cost Action CA15120, Open Multiscale Systems Medicine (**OpenMultiMed**), http://www.cost.eu/COST_Actions/ca/CA15120

(Mar 2013 – Feb 2016)

Project Coordinator and Work Package leader. 7th Framework Programme - Priority 2 “Information Society Technologies”. Call identifier: FP7-ICT-2011-9, Contract No 600803 (~2.4 Mln€ total, 600 k€ CNR). **MISSION-T2D** – “Multiscale Immune System Simulator for the Onset of Type 2 Diabetes integrating genetic, metabolic and nutritional data”

(Mar 2007 – Feb 2010)

Principal Investigator (Work Package leader). 6th Framework Programme - Priority 2 “Information Society Technologies”. Call identifier: FP6-2005-NEST-PATH, Contract No 043241 (~2 Mln€ total, 200 k€ CNR). **COMPLEXDIS** – “Unravelling complex diseases with complexity theory: from networks to the bedside”.

(Feb 2006 – Jan 2009)

Principal Investigator (Work Package leader). 6th Framework Programme - Priority 2 “Information Society Technologies”. Call identifier: FP6-2004-IST-Call4 , Contract No 028069 (~2 Mln€ total, 200 k€ CNR). **IMMUNOGRID** – “The European Virtual Human Immune System Project”

Awards

(Jun 2001 – Nov 2002)

Research fellow at the Harvard Medical School, as part of Cell Biology’s summer scholar program supported by the *Harvard - Armenise Foundation*, Boston, USA.

(Feb 1999 – Jul 2000)

Fellowship of the University of Catania (G.U. n.55 9.07.1996 IV s.s.).

(Oct 1995 – Apr 1996)

Fellowship of the consortium composed by IBM, University of Catania and Italsiel.

Evaluation Committees

(2017, 2019)

Grant applications assessment for the Ministry of Education and Science of the Russian Federation.

(2017)

Research proposal reviewer for the Marsden Fund Council of the New Zealand Royal Society Te Apārangi.

(2012-2013, 2015-2020)

Project proposal reviewer for the French National Alliance for Life and Health Science (AVISEAN) and the French Cancer Institute (INCa).

(2016)

Research proposal reviewer for the Deutsches Krebsforschungszentrum (DKFZ) and the Ministry of Science, Technology and Space of Israel (MOST).

(2015)

Research proposal reviewer for the Netherlands Foundation for Fundamental Research on Matter (FOM).

(2015)

Project proposal reviewer for the National Sustainability Programme (NPU) of the Czech Ministry of Education, Youth and Sports.

(2014)

Project proposal reviewer for the Netherlands Organisation for Scientific Research (NWO).

(2014)

Project proposal reviewer for the Israeli Science Foundation (ISF).

- ([2014]) Member of the jury for the evaluation of the final examination to achieve deil title of Doctor of Philosophy in Physics (Sub. Applied Physics and Physics of Matter) at the University of Bologna “Alma Mater Studiorum”.
- (2013) Project proposal reviewer for the U.S. Army Research Office (ARO).
- (2012) Project proposal reviewer for the Latvian Science Council (LSC).
- (2012) Project proposal reviewer for the Austrian Science Fund (FWF).
- (2010) Member of the jury for the evaluation of the final examination to achieve deil title of Doctor of Philosophy in Mathematics for Technology (XXII Ciclo - Settore Informatica) at the University of Catania.
- (2009-2013) Expert in monitoring the implementation of EU-funded project (FP7-ICT for Health) under the technical aspect, including definition of research priorities and objectives.
- (2009) Expert in the evaluation of grant proposals towards the objectives of ICT for Health theme of the FP7 European Union Framework Programme (Call FP7-ICT-2009-4).
- (2007) Expert in the evaluation of grant proposals towards the objectives of ICT for Health theme of the FP7 European Union Framework Programme (Call FP7-ICT-2007-2).
- (2007) Project proposal reviewer for the University of Hasselt, Belgium.

Teaching Activities

- (Mar 2019 – Jan 2020) Adjust Professor at the Department of Mathematics and Physics of *Roma Tre University* (Rome, Italy) lecturing on “Machine Learning” (**IN550 - Machine Learning**)
- (Sep 2017 – Dec 2017) Lecturer on “Information Systems” at the Department of Economics and Business of *Luiss “Guido Carli” University* in Rome, Italy.
- (AA 2015-16, 2016-17, 2017-18, 2018-19) Adjust Professor at the Department of Mathematics and Physics of *Roma Tre University* (Rome, Italy) lecturing on “Computational Biology” (**IN470 - Informatica 10, Metodi Computazionali per la Biologia**)
- (Feb 9 – 13, 2015) Invited lecturer on “Bioinformatics” for the master and doctoral students of the *Departamento de Bioquímica e Imunologia* of the *Universidade Federal de Minas Gerais*, Belo Horizonte, Brazil.
- (Jun 2005) Graduate level course on “Computer Security” sponsored by the *Regione Lazio*, Rome, Italy.
- (2004 – 2005) Assistant Professor for a first level Master course in “Information Security” (content “Unix/Linux and Windows Security” theory+practice), *University La Sapienza*, Rome, Italy.
- (Oct 2004) Teacher on “Unix internals” *Telecom Italia Learning Center (TILS)*, Rome, Italy.
- (Sep 2003 – Nov 2003) Teacher on “DNS, e-mail systems, multicasting and VoIP”. *Ministero della Università e della Ricerca Scientifica (MIUR)*, Rome.
- (Jul 13 – 19, 2002) Invited lecturer on “Mathematical Modeling of Biological Systems”, at the *Institute for Theoretical BioPhysics*, *Humboldt University*, Berlin, Germany.
- (Nov 2000 – Jul 2001) Assistant lecturer on “Programming” at the *University “La Sapienza”*, Rome, Italy.
- (Oct 1997) Invited lecturer on “Numerical Simulations” at the *University of Catania*, Italy.

Organization/Committee of international conferences

- (2020) Scientific and Organising Committee Member of the *Mathematical Modelling and Control for Healthcare and Biomedical Systems (MCHBS 2020)* conference. September 8-10, 2020, Rome, Italy.
- (2020) **Co-organiser** of the Special Session *Discrete Dynamic Modeling of Biological Systems* at the *The Third International Conference on Mathematics and Statistics (AUS-ICMS20)* *American University of Sharjah*, UAE, February 6–9, 2020.
- (2020) International Scientific Committee Member of the *6th International Conference on Complex Dynamical System in Life Science: Modeling & Analysis (ICCDS2020)*. March 16-18, 2020. *United Arab Emirates University*, Al Ain, UAE,
- (2019) Program Committee Member of the *3rd International Workshop on Computational Methods for the Immune System Function (CMISF 2019)* December 18-21, 2019. San Diego, USA
- (2018) Program Committee Member of the *3rd Workshop on Molecular Communications (Mol-Com2018)* April 4-6, 2018. Ghent, Belgium

- (2018) Program Committee Member of the 2nd International Workshop on Computational Methods for the Immune System Function (*CMISF 2018*) December 3, 2018. Madrid, Spain
- (2017) Program Committee Member of the 1st International Workshop on Computational Methods for the Immune System Function (*CMISF 2017*) November 13, 2017. Kansas City, MO, USA
- (2017) **Co-organise/co-chair** of the Modeling and computational approaches to Biology and Medicine (*MOBI-2017*) June 26-28, 2017 - Rome, Italy
- (2015) **Co-organise/co-chair** of the 1st International Conference on Computational Modeling of Metabolic Health, Inflammation and Diabetes (*MMH 2015*) October 6-7, 2015 - Cambridge, UK
- (2015) Programme Committee member of the 1st Genome Informatics Workshop / International Conference on Bioinformatics Joint Conference (*GIW/InCoB2015*) Sept 9-11, 2015 - Odaiba, Tokyo, Japan
- (2014) Programme Committee member of the 13th International Conference on Bioinformatics (*InCoB2014*) July 31st - Aug 2nd, 2014 - Sydney, New South Wales, Australia
- (2013) Programme Committee member of the 12th International Conference on Bioinformatics (*InCoB2013*) Sep 20-22th, 2013 - Taicang, China
- (2012) Programme Committee member of the 11th International Conference on Bioinformatics and Computational Biology (*InCoB2012*) October 3-5, 2012 - Bangkok, Thailand.
- (2012) **Co-coorganize/co-chair** the VPH2012 Integrative approaches to computational biomedicine conference London, September 18th-20th, 2012.
- (2011) Programme Committee member of the 10th International Conference in Bioinformatics - 1st ISCB Asia Joint Conference (*InCoB2011-ISCB Asia*), Nov 27 - Dec 3, 2011, Kuala Lumpur, Malaysia. Chair of the Basic and Clinical Immunoinformatics and Immunomics (sub-)conference (BCII 2011).
- (2010) Organising Committee member of *MathCell 2010*, Dec 14-15, 2010, Rome, Italy.
- (2010) Programme Committee member of the 9th International Conference on Bioinformatics - *InCoB2010* September 26-28, 2010, Tokyo, Japan.
- (2010) Programme Committee member of the 3rd IASTED African Conference on Modelling and Simulation ("*AfricaMS 2010*") September 6-8, 2010, Gaborone, Botswana.
- (2009) **Co-organiser** of the workshop *Optimal Control and Optimization for Individual-based and Agent-based Models*. December 1-3, 2009 at the National Institute for Mathematical and Biological Synthesis (NIMBioS) at the University of Tennessee, Knoxville, TN, USA.
- (2008) Programme Committee member of *The 2nd IASTED African Conference on Modelling and Simulation ("AfricaMS 2008")*, September 8 - 10, 2008, Gaborone, Botswana.
- (2007) Programme Committee member of the 6th International Conference on Artificial Immune Systems (*ICARIS 2007*), 26 - 29 August, 2007, Santos/SP, Brazil.
- (2006) Programme Committee member of the 5th International Conference on Artificial Immune Systems (*ICARIS 2006*), 4 - 6 September, 2006, Oeiras, Portugal.
- (2005) Programme Committee member of the 4th International Conference on Artificial Immune Systems (*ICARIS 2005*), 14 - 17 August, 2005, in Banff, Alberta, Canada.
- (2005) International advisor of the *International Symposium on Bio-Inspired Computing (BIC'05)*. September 5 - 7, 2005, Johor, Malaysia.
- (2004) Programme Committee member of the 3rd International Conference on Artificial Immune Systems (*ICARIS 2004*). 13 - 16 September, 2004, Catania, Italy.
- (2004) **Co-organiser** of the invited session "Computational Biology" at the 43rd IEEE Conference on Decision and Control. 14 - 17 December, 2004, Nassau, Bahamas.
- (2004) Technical Program Committee Member for *SimTecT 2004*. 24 - 27 May, 2004, Canberra, Australia.
- (2003) **Co-organiser** of the IMA "Hot Topics" Workshop: *Agent Based Modeling and Simulation*. November 3 - 6, 2003, Institute for Mathematics and its Applications (IMA) Minneapolis, MN, USA.

Editorial and related activities

(Since Jan 2020)

Review Editor of the journal "Frontiers in Immunology", Frontiers Media. <https://www.frontiersin.org/journals/immunology/sections/viral-immunology>

- (Since 2018) Editorial Board Member of “Computational and Mathematical Methods in Medicine”, Hindawi. <https://www.hindawi.com/journals/cmmm/>
- (Since 2011) Editorial Board Member of “PLoS ONE” (open access, peer-reviewed, on-line journal), Public Library of Science <http://www.plosone.org>
- (Since 2005) Editorial Board Member of the “Immunome Research” (open access, peer-reviewed, on-line journal), BioMed Central <http://www.immunome-research.com>
- (2015 – 2018) Editorial Advisory Board Member of “The Open Biochemistry Journal” (open access, peer-reviewed, on-line journal), Bentham Science Publishers
- (2014) Guest Editor of the Special Issue “Computational Studies of Immune System Function”, Computation (ISSN 2079-3197). Published online by MDPI (2015) http://www.mdpi.com/journal/computation/special_issues/system-function
- (2014) Guest Editor of the Special Issue “Computational and Bioinformatics Techniques for Immunology”, Eds. F. Pappalardo, V. Brusici, **F. Castiglione**, C. Schönbach. BioMed Research International, Hindawi Publishing Corporation (2014). <http://www.hindawi.com/journals/bmri/si/390574/cfp/>
- (2012 – 2015) Editorial Board Member of the (peer-reviewed, open access) journal “ISRN Computational Biology” (Hindawi Publishing Corporation) <http://www.hindawi.com/isrn/cbio/>
- (2012 – 2015) Editorial Board Member of the Bioinformatics section of the journal “Conference Papers in Biology” (open access, peer-reviewed, on-line journal), of the series Conference Papers in Science (Hindawi Publishing Corporation) <http://www.cpis.com/journals/biology/>
- (2012 – 2017) Editorial Board Member of “Dataset Papers in Biology” (open access, peer-reviewed, on-line journal), Datasets International (Hindawi Publishing Corporation) <http://www.datasets.com/journals/biology>
- (2007 – 2015) Editorial Advisory Board Member of “The Open Bioinformatics Journal” (open access, peer-reviewed, on-line journal), Bentham Science Publishers <http://www.bentham.org/open/tobioij/index.htm>
- (2009) Section Editor of “Agent based modeling and simulation” of the Encyclopedia of Complexity and System Science, Mayers Robert (Ed.), Springer Verlag (2009) <http://refworks.springer-sbm.com/complexity/> and of a six-volume spin-off of the Encyclopedia titled Computational Complexity: Theory, Techniques, and Applications <http://www.springer.com/computer/theoretical+computer+science/book/978-1-4614-1799-6>
- (–present) Served as referee for the following journals: * Advances in Complex Systems * Advances in Difference Equations * AIDS Research and Human Retrovirus * Artificial Intelligence in Medicine * Autoimmunity * Bioinformatics * BioSystems * BMC Bioinformatics * BMC Immunology * BMC Systems Biology * Bulletin of Mathematical Biology * Cancer Research * Cancer Immunology, Immunotherapy * Cardiovascular Diabetology * Communications in Computational Physics * Computational and Mathematical Methods in Medicine * Computers in Biology and Medicine * EuroPhysics Letters * Evolutionary Intelligence * Expert Review Clinical Immunology * IEEE Transactions on Evolutionary Computation * Immunome Research * International Journal of Computer Mathematics * International Journal of Control, Automation, and Systems * International Journal of Molecular Sciences * ISRN Computational Biology * Journal of Theoretical Biology * Journal of Mathematical Biology * Letters in Biomathematics * Mathematical Bioscience * Mathematical Bioscience and Engineering * Mathematical Modeling of Natural Phenomena * Mathematics and Computers in Simulation * Pattern Recognition * Physica A * PLoS ONE * PLoS Computational Biology * Quantitative Finance * Science Translational Medicine * SIAM Journal on Applied Mathematics * Simulation: Transactions of the Society for Modeling and Simulation International * SystemsBioMedicine * The Open Bioinformatics Journal * Vaccine *
- (–present) Served as referee for the conferences/proceedings of the IEEE society, the International Association of Science and Technology for Development (IASTED), the International Conferences on Intelligent Computing (ICIC), and the International Conference on Bioinformatics (InCoB) of the Asia-Pacific Bioinformatics Network (APBioNet).
- (2007-2008) Author and curator of the review article “Agent Based Modeling” of the Encyclopedia of Computational Neuroscience, hosted by *Scholarpedia*, the free peer reviewed encyclopedia. http://www.scholarpedia.org/article/Agent_Based_Modeling

Books

- (2015) **F. Castiglione** and F. Celada. Immune System Modeling and Simulation. CRC Press (2015). ISBN 978-1-4665-9748-8. <http://www.crcpress.com/product/isbn/9781466597488>

Journal Articles

- (2020) E. Stalidzans, M. Zanin, P. Tieri, **F. Castiglione**, A. Polster, S. Scheiner, J. Pahle, B. Stres, M. List, J. Baumbach, M. Lautizi, K. Van Steen, H. H.H.W. Schmidt, Mechanistic Modeling and Multiscale Applications for Precision Medicine: Theory and Practice, *Network and Systems Medicine*, **3(1)**: 36-56 (2020) doi 10.1089/nsm.2020.0002 <https://doi.org/10.1089/nsm.2020.0002>
- (2019) A. Presbitero, E. Mancini, **F. Castiglione**, V. V. Krzhizhanovskaya, R. Quax. The Game of Neutrophils: Modeling the Balance Between Apoptosis and Necrosis. *BMC Bioinformatics* **20(6)**: 475. (2019) <https://doi.org/10.1186/s12859-019-3044-6>
- (2019) M. Zanin, I. Chorbev, B. Stres, E. Stalidzans, J. Vera, P. Tieri, **F. Castiglione**, D. Groen, H. Zheng, J. Baumbach, J. Schmid, J. Basilio, P. Klimek, N. Debeljak, D. Rozman, H. Schmidt. Community effort endorsing multiscale modeling, multiscale data science and multiscale computing for systems medicine. *Briefings in Bioinformatics*, 20(3):1057-1062 (2019) <https://doi.org/10.1093/bib/bbx160>
- (2019) **F. Castiglione**, D. Ghersi, F. Celada. Computer modeling of clonal dominance: Memory-Anti-Naïve and its curbing by Attrition. *Frontiers in Immunology*, **10**:1513 2019
- (2019) V. Prana, P. Tieri, M.C. Palumbo, E. Mancini, **F. Castiglione**. Modeling the effect of high calorie diet on the interplay between adipose tissue, inflammation and diabetes. *Computational and Mathematical Methods in Medicine*, **2019** Article ID 7525834 (2019)
- (2018) A. Palma, A. S Jarrah, P. Tieri, G. Cesareni and **F. Castiglione**. Gene regulatory network modeling of macrophage differentiation corroborates the continuum hypothesis of polarization states *Frontiers in Physiology*, **9**: 1659 (2018)
- (2018) M-C. Palumbo, M. Morettini, P. Tieri, F. Diele, M. Sacchetti, **F. Castiglione**. Personalizing physical exercise in a computational model of fuel homeostasis. *PLOS Computat Biol.*, **14(4)**:e1006073 (2018)
- (2017) M. Zanin, I. Chorbev, B. Stres, E. Stalidzans, J. Vera, P. Tieri, **F. Castiglione**, D. Groen, H. Zheng, J. Baumbach, J. Schmid, J. Basilio, P. Klimek, N. Debeljak, D. Rozman, H. Schmidt. Community effort endorsing multiscale modeling, multiscale data science and multiscale computing for systems medicine. *Briefings in Bioinformatics*, bbx160 (2017)
- (2017) H. De Assis Lopes Ribeiro, T. Uceli Maioli, L. Martins Freitas, Paolo Tieri, **F. Castiglione**. Modeling immune response to Leishmania species indicates adenosine as an important inhibitor of Th-cell activation. *Frontiers in Cellular and Infection Microbiology*, **7**:309 (2017)
- (2017) M. Morettini, M-C. Palumbo, M. Sacchetti, **F. Castiglione**, C. Mazzà. A system model of the effects of exercise on plasma Interleukin-6 dynamics in healthy individuals: role of skeletal muscle and adipose tissue. *PlosOne* to appear (2017)
- (2017) A. Madonia, C. Melchiorri, S. Bonamano, M. Marcelli, C. Bulfon, **F. Castiglione**, M. Galeotti, D. Volpatti, F. Mosca, P-G. Tiscar and N. Romano. Computational modeling of immune system of the fish for a more effective vaccination in aquaculture. *Bioinformatics*, (2017) btx341.
- (2017) A. Liso, Castellani, F. Massenzio, A. Pucciarini, B. Bigerna, P. De Luca, P. Zoppoli, **F. Castiglione**, M-C. Palumbo, M. Conese, S. Castellani, F. Stracci, M. Landriscina, G. Specchia and B. Falini. Human monocyte-derived dendritic cells exposed to hyperthermia show a distinct gene expression profile and selective upregulation of IGFBP6. *Oncotarget* **8(37)**:60826-40 (2017)
- (2017) J-F. Moreau, T. Pradeu, A. GRignolio, C. Nardini, **F. Castiglione**, P. Tieri, M. Capri, S. Salviooli, J-L. Taupin, P. Garagnani, C. Franceschi. The emerging role of ECM crosslinking in T cell mobility as a hallmark of immunosenescence in humans. *Ageing Research Reviews*, Available online 19 November 2016,
- (2016) Clare Sansom, **F. Castiglione**, Pietro Liò. Metabolic disorders: how can systems modelling help? *The Lancet Diabetes and Endocrinology*, **4(4)**: 306 (2016)

- (2015) A-R. Garbuglia, R. Lionetti; D. Lapa, C. Taibi, U. Visco Comandini, M. Montalbano, G. D'Offizi, **F. Castiglione**, M. Capobianchi, P. Paci. The clinical significance of HCV core antigen detection during Telaprevir/Peg-Interferon/Ribavirin therapy in patients with HCV 1 genotype infection. *Journal of Clinical Virology*, **69**:68–73 (2015)
- (2015) E. Galeota, C. Gavrila, **F. Castiglione**, M. Bernaschi and G. Cesareni. The hierarchical organization of natural protein interaction networks confers self-organization properties on pseudocells. *BMC Systems Biology* **9**(3):S3 (2015)
- (2015) **F. Castiglione**. Mathematical Immunology. *Expert Review of Immunology Vaccines and Informatics*, **2**(1):49–51 (2015)
- (2015) A. Cappuccio, P. Tieri and **F. Castiglione**. Multiscale modelling in immunological: a review. *Briefings in Bioinformatics* 1-11 (2015)
- (2014) P. Tieri, A. de Graaf, S. Krishnan, M. Ernst and **F. Castiglione**. Pre-empting Type 2 Diabetes. *International Innovation*, **140**:40-43 (2014)
- (2014) M-C. Palumbo, L. Farina, **F. Castiglione**, M. Fasoli, S. Zenoni, M. Pezzotti and P. Paci. Integrated network analysis identifies key switch genes that control major transcriptome re-programming during grapevine development. *The Plant Cell*, **26**(12): 4617–4635 (2014)
- (2014) **F. Castiglione**. Immunoinformatics. *International Innovation*, **133**:23-25 (2014)
- (2014) A.S. Jarrah, **F. Castiglione**, N.P. Evans, R.W. Grange, R. Laubenbacher. A mathematical model of skeletal muscle disease and immune response in the mdx mouse.
- (2014) **F. Castiglione**, F. Pappalardo, C. Bianca and S. Motta Modeling biology spanning different scales: An open challenge. *BioMed Research International*, Article ID 902545, (2014)
- (2013) **F. Castiglione**, P. Tieri, A. De Graaf, C. Franceschi, P. Liò, B. Van Ommen, C. Mazzà, A. Tuchel, M. Bernaschi, C. Samson, T. Colombo, G. Castellani, M. Capri, P. Garagnani, S. Salvioli, V. Anh Nguyen, I. Bobeldijk-Pastorova, S. Krishnan, A. Cappelletto, M. Sacchetti, M. Morettini, M. Ernst. The Onset of Type 2 Diabetes: Proposal for a Multi-Scale Model. *JMIR Research Protocols*, 01/2013 **2**(2):e44 (2013)
- (2013) J. von Eichborn, A-L. Woelke, **F. Castiglione**, R. Preissner. Vacclmm: Simulating peptide vaccination in cancer therapy *BMC Bioinformatics* **14**:127 (2013)
- (2013) D. Santoni, **F. Castiglione**, P. Paci. Identifying Correlations between Chromosomal Proximity of Genes and Distance of Their Products in Protein-Protein Interaction Networks of Yeast. *PLoS ONE* **8**(3): e57707 (2013)
- (2013) **F. Castiglione**, V. Diaz, A. Gaggioli, P. Liò, C. Mazzà, E. Merelli, C.G.M. Meskers, F. Pappalardo and R. von Ammon. Physio-environmental sensing and live modeling. *Interactive Journal of Medical Research* **2**(1): e3 (2013)
- (2012) B. Ribba, H. El Garch, S. Brunet, E. Grenier, **F. Castiglione**, H. Poulet and P. Vanhems. Time-course analysis of main markers of primary infection in cats with the feline immunodeficiency virus. *Computational and Mathematical Methods in Medicine*, **2012**: 342602 (2012)
- (2012) **F. Castiglione**, F. Mantile, P. De Berardinis, A. Prisco How the interval between prime and boost injection affects the immune response in a computational model of the immune system. *Computational and Mathematical Methods in Medicine*, **2012**: 842329 (2012)
- (2012) E. Mancini, **F. Castiglione**, M. Bernaschi, A. de Luca, P.M.A. Slood. HIV reservoirs and immune surveillance evasion cause the failure of structured treatment interruptions: A computational study. *PLoS ONE*, **7**(4): e36108 (2012)
- (2012) N. Arrigo, P. Paci, L. Di Paola, D. Santoni, M. De Ruvo, A. Giuliani, **F. Castiglione**. Characterizing protein shape by a volume distribution asymmetry index. *The Open Bioinformatics Journal*, **6**: 20–27 (2012)
- (2012) **F. Castiglione**, S. Motta, F. Pappalardo and M. Pennisi. A modeling framework for immune-related diseases. *Mathematical Modelling of Natural Phenomena*, **7**(3): 40–48 (2012)
- (2012) F. Pappalardo, A. Palladini, M. Pennisi, **F. Castiglione**, S. Motta. Mathematical and computational models in tumor immunology. *Mathematical Modelling of Natural Phenomena*, **7**(3): 186–203 (2012)
- (2011) A-L. Woelke, J. von Eichborn, M.S. Murgueitio, C.L. Worth, **F. Castiglione**, R. Preissner. Development of Immune-Specific Interaction Potentials and Their Application in the Multi-Agent-System Vacclmm. *PLoS ONE*, **6**(8): e23257 (2011)
- (2011) N. Rapin, O. Lund and **F. Castiglione**. Immune System Simulation Online. *Bioinformatics*, **27**(14): 2013-2014 (2011)

- (2011) T. Clancy, M. Pedicini, **F. Castiglione**, D. Santoni, V. Nygaard, T. J. Lavelle, M. Benson and E. Hovig. Immunological network signatures of cancer progression and survival. *BMC Medical Genomics*, **4**:28 (2011)
- (2011) P. Paci, F. Martini, M. Bernaschi, G. D'Offizi and **F. Castiglione**. Earlier is better: a timely HAART initiation may pave the way for best controllers. *BMC Infectious Diseases*, **11**:56 (2011)
- (2011) **F. Castiglione**, D. Santoni, N. Rapin. CTLs' repertoire shaping in the thymus: a Montecarlo simulation. *Autoimmunity*, **44**(4): 1–10 (2011)
- (2010) M. Pedicini, F. Barrenäs, T. Clancy, **F. Castiglione**, E. Hovig, K. Kanduri, D. Santoni, M. Benson. Combining network modeling and gene expression microarray analysis to explore the dynamics of Th1 and Th2 cell regulation. *PLoS Computational Biology*, **6**(12): e1001032 (2010)
- (2010) **F. Castiglione** and P.Paci. Criticality of timing for anti-HIV therapy initiation. *PLoS ONE*, **5**(12): e15294 (2010)
- (2010) M. Halling-Brown, F. Pappalardo, N. Rapin, P. Zhang, D. Alemani, A. Emerson, **F. Castiglione**, P. Doroux, M. Penissi, O. Miotto, D. Churchill, E. Rossi, D. S. Moss, C. E. Sansom, M. Bernaschi, M-P. Lefranc, S. Brunak, S. Motta, P-L. Lollini, K. E. Basford, V. Brusic, A. J. Shepherd. ImmunoGrid: towards agent-based simulations of the human immune system at a natural scale. *Philosophical Transactions of the Royal Society A*, **368**(1920): 2799–2815 (2010)
- (2010) N. Rapin, O. Lund, M. Bernaschi and **F. Castiglione**. Computational Immunology Meets Bioinformatics: The Use of Prediction Tools for Molecular Binding in the Simulation of the Immune System. *PLoS ONE*, **5**(4): e9862 (2010)
- (2010) F. Pappalardo, M. Pennisi, **F. Castiglione** and S. Motta. Vaccine protocols optimization: in silico experiences. *Biotechnology Advances*, **28**: 82–93 (2010)
- (2010) T. Avitabile, Francesco Castiglione, V. Bonfiglio and **Filippo Castiglione**. Transconjunctival sutureless 25-gauge versus 20-gauge standard vitrectomy: correlation between corneal topography and ultrasound biomicroscopy measurements of sclerotomy sites. *Cornea*, **29**(1): 19–25 (2010).
- (2009) V. Baldazzi, P. Paci, M. Bernaschi and **F. Castiglione**. Modeling lymphocytes homing and encounters in lymph nodes. *BMC Bioinformatics*, **10**: 387 (2009)
- (2009) P. Paci, R. Carello, M. Bernaschi, G. D'Offizi and **F. Castiglione**. Immune control of HIV-1 infection after therapy interruption: immediate versus deferred antiretroviral therapy. *BMC Infectious Diseases*, **9**: 172 (2009)
- (2009) G. Dell'Acqua and **F. Castiglione**. Stability and phase transitions in a mathematical model of Duchenne muscular dystrophy. *Journal of Theoretical Biology*, **260**(2): 283–289 (2009)
- (2009) D. Vergni, **F. Castiglione**, M. Briani, S. Middei, E. Alberdi, K. G. Reymann, R. Natalini, C. Volonté, C. Matute, F. Cavaliere. A Model of Ischemia-Induced Neuroblast Activation in the Adult Subventricular Zone. *PLoS ONE*, **4**(4): e5278 (2009)
- (2009) F. Pappalardo, M. D. Halling-Brown, N. Rapin, P. Zhang, D. Alemani, A. Emerson, P. Paci, P. Duroux, M. Pennisi, A. Palladini, O. Miotto, D. Churchill, E. Rossi, A. J. Shepherd, D. S. Moss, **F. Castiglione**, M. Bernaschi, M-P. Lefranc, S. Brunak, S. Motta, P-L. Lollini, K. E. Basford and V. Brusic. ImmunoGrid, an integrative environment for large-scale simulation of the immune system for vaccine discovery, design, and optimization. *Briefing in Bioinformatics*, **10**(3):330-40 (2009).
- (2008) A. Cappuccio, **F. Castiglione**, B. Piccoli and V. Tozzi. Evaluation of HIV/CD4⁺ T cell dynamic parameters in patients treated with genotypic resistance testing-guided HAART. *Current HIV Research*, **6**(4):363–369 (2008)
- (2008) A. Liso, **F. Castiglione**, A. Cappuccio, F. Stracci, R. Schlenk, S. Amadori, C. Thiede, S. Schnittger, P. J.M. Valk, K. Döhner, M. F. Martelli, M. Schaich, J. Krauter, A. Ganser, M. P. Martelli, N. Bolli, B. Löwenberg, T. Haferlach, G. Ehninger, F. Mandelli, H. Döhner, F. Michor, and B. Falini. A one-mutation mathematical model can explain the age incidence of AML with mutated nucleophosmin (NPM1). *Haematologica/The Hematology Journal*, **93**(8):1219–1226 (2008)
- (2008) D. Santoni, M.Pedicini, **F. Castiglione**. Implementation of a regulatory gene network to simulate the TH1/2 differentiation in an agent-based model of hyper-sensitivity reactions. *Bioinformatics*, **24**:1374–1380 (2008)

- (2008) V. Tozzi, R. Bellagamba, **F. Castiglione**, A. Amendola, J. Ivanovic, E. Nicastrì, R. Libertone, G. D'Offizi, G. Liuzzi, C. Gori, F. Forbici, R. D'Arrigo, A. Bertoli, M-F. Salvatori, M-R. Capobianchi, A. Antinori, C-F. Perno, P. Narciso. Plasma HIV RNA decline and drug resistance evolution among patients with multiple virologic failures receiving resistance testing-guided HAART. *AIDS Research and Human Retroviruses*, **24**(6):787–796 (2008)
- (2008) M. Bernaschi and **F. Castiglione**. A comment to “Optimization and parallelisation strategies for Monte Carlo simulation of HIV infection” by D. Hecqueta , H.J. Ruskinb , M. Crane. *Computers in Biology and Medicine*, **38**:281 (2008).
- (2007) **F. Castiglione**, F. Pappalardo, M. Bernaschi and S. Motta. Optimization of HAART with genetic algorithms and agent based models of HIV infection. *Bioinformatics*, **23**(24):3350–3355 (2007);
- (2007) **F. Castiglione** and B. Piccoli. Cancer immunotherapy, mathematical modeling and optimal control. *Journal of Theoretical Biology*, **247**(4):723–732 (2007)
- (2007) **F. Castiglione**, K.A. Duca, A. Jarrah, R. Laubenbacher, K. Luzuriaga, D. Hochberg and D.A. Thorley-Lawson. Simulating Epstein Barr Virus Infection with C-ImmSim. *Bioinformatics*, **23**:1371–1377 (2007)
- (2007) A. Cappuccio, **F. Castiglione** and B. Piccoli. Determination of the optimal therapeutic protocol in cancer immunotherapy. *Mathematical Biosciences*, **209**(1):1–13 (2007)
- (2007) M. Bernaschi, **F. Castiglione**, A. Ferranti, C. Gavrila, and G. Cesareni. Protinet: a stochastic tool for dynamic simulation of protein interaction networks. *BMC Bioinformatics*, **8**(1):S4 (2007)
- (2007) **F. Castiglione**, A. Liso, M. Bernaschi and S. Succi. Microscopic simulation in biology and medicine. *Current Medicinal Chemistry*, **14**(6): 625–637 (2007)
- (2006) V. Baldazzi, **F. Castiglione** and M. Bernaschi. An Enhanced Agent Based Model of the Immune System Response. *Cellular Immunology*, **244**:77–79 (2006)
- (2006) B. Piccoli and **F. Castiglione**. Optimal vaccine scheduling in cancer immunotherapy. *Physica A*, **370**(2):672–680 (2006)
- (2006) **F. Castiglione** Agent Based Modeling. *Scholarpedia*, **1**(10):1562 (2006) *Regularly refereed paper*
- (2006) **F. Castiglione** and B. Piccoli. Optimal control in a model of dendritic cell transfection cancer immunotherapy. *Bulletin of Mathematical Biology*, **68**(2):255–274 (2006)
- (2005) **F. Castiglione** and M. Bernaschi. HIV-1 strategies of immune evasion. *International Journal of Modern Physics C*, **16**(12):1869–1879 (2005)
- (2005) F. Massaioli, **F. Castiglione** and M. Bernaschi. OpenMP parallelization of agent-based models. *Parallel Computing*, **31**(10-12):1066–1081 (2005)
- (2005) S. Motta, **F. Castiglione**, P.-L. Lollini and F. Pappalardo. Modelling vaccination schedules for a cancer immunoprevention vaccine. *Immunome Research*, **1**(1):5 (2005)
- (2005) **F. Castiglione** and A. Liso. The role of computational models of the immune system in designing vaccination strategies. *Immunopharmacology and Immunotoxicology*, **27**(3):417–432 (2005)
- (2005) **F. Castiglione**, F. Toschi, M. Bernaschi, S. Succi, R. Benedetti, B. Falini and A. Liso. Computational modeling of the immune response to tumor antigens: implications for vaccination. *Journal of Theoretical Biology*, **237**(4):390–400 (2005)
- (2005) F. Pappalardo, P.-L. Lollini, **F. Castiglione** and S. Motta. Modelling and Simulation of Cancer Immunoprevention Vaccine. *Bioinformatics*, **21**(12):2891–2897 (2005)
- (2005) **F. Castiglione** and S. Succi. Simulating the G-protein cAMP pathway with a two-compartment reactive lattice gas. *Theory in Bioscience*, **123**:413–429 (2005)
- (2005) M. Bernaschi and **F. Castiglione**. Computational features of agent-based models. *International Journal of Computational Methods*, **2**(1):33–48 (2005)
- (2004) **F. Castiglione**, F. Poccia, G. D'Offizi and M. Bernaschi. Mutation, fitness, viral diversity and predictive markers of disease progression in a computational model of HIV-1 infection. *AIDS Research and Human Retrovirus*, **20**(12):1316–1325 (2004)
- (2004) T. Avitabile, L. Franco, E. Ortisi, Francesco Castiglione, M. Pulvirenti, B. Torrisi, **Filippo Castiglione** and A. Reibaldi. Keratoconus Staging: A Computer-Assisted Ultrabiomicroscopic Method Compared With Videokeratographic Analysis. *Cornea*, **23**(7):655–660, (2004).
- (2002) **F. Castiglione**, M. Bernaschi, S. Succi, R. Heinrich and M.W. Kirschner. Intracellular signal propagation in a two-dimensional auto-catalytic reaction model. *Physical Review E*, **66**(3), 031905 (2002)

- (2002) M. Bernaschi and **F. Castiglione**. Selection of escape mutants from immune recognition during HIV infection, *Immunology and Cell Biology*: **80**, 307–313 (2002)
- (2001) **F. Castiglione** and D. Stauffer. Multi-scaling in the Cont-Bouchaud microscopic stock market model. *Physica A*, **300(3-4)**: 531–538 (2001)
- (2001) K.E. Kürten and **F. Castiglione**. A dynamical model of B-T cell regulation. *International Journal of Modern Physics C*, **12(3)**: 367–375 (2001)
- (2001) M. Bernaschi and **F. Castiglione**. Design and implementation of an Immune System Simulator. *Computers in Biology and Medicine*, **31(5)**: 303–331 (2001)
- (2001) **F. Castiglione**, S. Motta and G. Nicosia. Pattern Recognition by primary and secondary response of an Artificial Immune System. *Theory in Bioscience*, **120(2)**: 93–106 (2001)
- (2001) **F. Castiglione**, R.B. Pandey and D. Stauffer. Effect of Trading Momentum and Price Resistance on Stock Market Dynamics: A Glauber Monte Carlo Simulation, *Physica A*, **289(1-2)**: 223–228 (2001)
- (2001) **F. Castiglione**. Forecasting price increments using an artificial Neural Network, in *Complex Dynamics in Economics*, a Special Issue of *Advances in Complex Systems*, **4(1)**: 45–56, Hermes-Oxford (2001)
- (2000) M. Bernaschi and **F. Castiglione**. Effects of technical traders in a synthetic Stock Market. *International Journal of Modern Physics C*, **11(7)**: 1437–1454 (2000)
- (2000) **Filippo Castiglione** and Francesco Castiglione. Estimating the Keratoconus Index from ultrasound images of the human cornea, *IEEE Transaction on Medical Imaging*, **19(12)**: 1268–1227 (2000)
- (2000) **F. Castiglione**. Diffusion and Aggregation in an Agent Based Model of Stock Market Fluctuations. *International Journal of Modern Physics C*, **11(5)**: 865–880 (2000)
- (2000) Francesco Castiglione and **Filippo Castiglione**. Estrapolazione automatica del Keratoconus index dall'analisi computerizzata di immagini ultrabiomicroscopiche. *Bollettino di Oculistica*, **79(1)** (2000)
- (2000) M. Bernaschi, S. Succi and **F. Castiglione**. Large-scale Cellular Automata simulations of the Immune System response, *Physical Review E*, **61(2)**: 1851–1854 (2000)
- (1999) **F. Castiglione**, G. Mannella, S. Motta and G. Nicosia. A Network of Cellular Automata for the simulation of the immune system. *International Journal of Modern Physics C*, **10(4)**: 677–686 (1999)
- (1999) M. Bernaschi, **F. Castiglione**, P.E. Seiden and S. Succi. Learning cascade in the immune system dynamics: a numerical simulation. *Computer Physics Communications*, **121(1-3)**: 122–125 (1999)
- (1999) **F. Castiglione**. Antigen recognition and evolution in a bit-string population model. *International Journal of Modern Physics C*, **10(6)**: 989–1002 (1999)
- (1999) M. Bernaschi, **F. Castiglione** and S. Succi. A high performance simulator of the immune response, *Future Generation Computer Systems*, **15(3)**: 333-342 (1999), Elsevier Science ed.
- (1998) M. Bernaschi, **F. Castiglione** and S. Succi. A parallel simulator of the Immune response. *Lecture Notes on Computer Science*, **1401**: 163–172 (1998)
- (1997) S. Succi, **F. Castiglione** and M. Bernaschi. Collective Dynamics in the Immune System Response. *Physical Review Letters*, **79(22)**: 4493–4496 (1997)
- (1997) **F. Castiglione**, M. Bernaschi and S. Succi. Simulating the Immune Response on a Distributed Parallel Computer. *International Journal of Modern Physics C*, **8(3)**: 527–545 (1997)

Book Chapters

- (2018) **F. Castiglione**, E. Mancini, M. Pedicini, A. S. Jarrah. Quantitative Modelling Approaches. In: Ranganathan, S., Nakai, K., SchjC3zjB6znbach C. and Gribskov, M. (eds.) *Encyclopedia of Bioinformatics and Computational Biology*, Oxford: Elsevier. (2018)
- (2018) Paolo Tieri, Lorenzo Farina, Manuela Petti, Laura Astolfi, Paola Paci, **F. Castiglione**. Network inference and reconstruction in bioinformatics. In: Ranganathan, S., Nakai, K., SchjC3zjB6znbach C. and Gribskov, M. (eds.) *Encyclopedia of Bioinformatics and Computational Biology*, Oxford: Elsevier. (2018)

- (2018) Pedicini M., Palumbo M.C., **F. Castiglione**. Computing Hierarchical Transition Graphs of Asynchronous Genetic Regulatory Networks. In: Pelillo M., Poli I., Roli A., Serra R., Slanzi D., Villani M. (eds.) "Artificial Life and Evolutionary Computation." WIVACE 2017. Communications in Computer and Information Science, vol 830. Springer, Cham (2018)
- (2017) T. Mendes, **F. Castiglione**, P. Tieri and L. Felicori. Systems and Synthetic Biology Applied to Health, In Current Developments in Biotechnology and Bioengineering, *Elsevier*, Pages 183-213, (2017) (ISBN 9780444636607)
- (2014) P. Tieri, V. Prana, T. Colombo, D. Santoni, **F. Castiglione**. Multi-scale simulation of T helper lymphocyte differentiation, in "Advances in Bioinformatics and Computational Biology", Sérgio Campos (Ed.), Lecture Notes in Computer Science, Vol. 8826, pp. 123-134 *Springer Verlag* (2014) (ISBN 978-3-319-12417-9)
- (2012) **F. Castiglione**, P-L. Lollini, S. Motta, A. Paladini, F. Pappalardo, M. Pennisi. Computational models as novel tools for cancer vaccines, in "New Challenges for Cancer Systems Biomedicine (Simai Springer Series)", A. D'Onofrio, P. Cerrai, A. Gandolfi (Eds.), *Springer Verlag* (2012) (ISBN: 978-8847025707)
- (2012) **F. Castiglione**, B. Ribba, O. Brass. Comparing in-silico results to in vivo and ex-vivo of influenza-specific immune responses after vaccination or infection in humans. In "Innovation in Vaccinology, from design, through to delivery and testing", Selene Baschieri (Ed.), *Springer Verlag* (2012) (ISBN: 978-94-007-4542-1)
- (2011) **F. Castiglione**. A Monte Carlo simulation for the construction of cytotoxic T lymphocytes repertoire. In "Applications of Monte Carlo Methods in Biology, Medicine and Other Fields of Science", Charles J. Mode (Ed.), *Intech Publishing*. Wien, Austria (2011)
- (2010) **F. Castiglione**, D. Santoni, M. Pedicini. Implementing agent's rules with gene regulatory networks in mesoscopic-level models of cellular interactions. In "A practical guide to bioinformatics analysis." *iConcept Press*. Annerley, Australia (2010)
- (2009) **F. Castiglione**. Agent Based Modeling and Simulation, Introduction to. In Meyers, Robert (Ed.) *Encyclopedia of Complexity and Systems Science*, Vol X. Springer, New York (2009). <http://www.springer.com/physics/complexity/book/978-0-387-75888-6>
- (2007) M. Bernaschi and **F. Castiglione**. Understanding the immune system by computer-aided modeling. In Schönbach, Christian; Ranganathan, Shoba; Brusic, Vladimir (Eds.) *Immunoinformatics*, Series: Immunomics Reviews: , Vol. 1, Springer, New York (2007) (ISBN: 978-0-387-72967-1),
- (2003) **F. Castiglione**, V. Sleitser and Z. Agur. Analyzing hypersensitivity to chemotherapy in a Cellular Automata model of the immune system. In Preziosi L. (Ed), *Cancer Modeling and Simulation*, Chapman & Hall/CRC Press (UK), pp 333–365, London (2003).
- (2002) **F. Castiglione**. Forecasting price increments using an artificial Neural Network. In Schweitzer (Ed.), *Modeling Complexity in Economic and Social Systems*, 395 pp. 45–56, World Scientific, Singapore (2002)
- (2000) **F. Castiglione**, M. Bernaschi and S. Succi. Simulating the immune response on a distributed parallel computer. In Bagnoli, Franco and Ruffo, Stefano (Eds.), *Dynamical Modeling in Biotechnologies*, World Scientific textbook eds. (2000).
- (2000) **F. Castiglione**. A Users Guide to CimmSim 1.1. In Bagnoli, Franco and Ruffo, Stefano (Eds.), *Dynamical Modeling in Biotechnologies*, World Scientific textbook eds (2000).

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European Society for Mathematical and Theoretical Biology (**ESMTB**, <http://www.esmtb.org>)

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International Immunomics Society (**IIMMS**)

Languages

Mothertongue

Italian

Other languages

*Self-assessment
European level^(*)*

English

German

French

Spanish

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
C1 Proficient user	C1 Proficient user	C1 Proficient user	C2 Proficient user	C2 Proficient user
B1 Independent user	B1 Independent user	A1 Basic user	A2 Basic user	B1 Independent user
B1 Independent user	A2 Basic user	A1 Basic user	A2 Basic user	A2 Basic user
B2 Independent user	B1 Independent user	A2 Basic user	A2 Basic user	A1 Basic user

^(*) Common European Framework of Reference (CEF) level

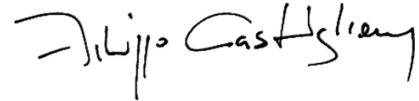
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Roma June 3, 2020

Filippo Castiglione



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