

## CARLO DE GIULI MORGHEN

### *Curriculum Vitae*

- 1965 PhD in Biological Sciences at the State University of Padova
- 1970 Researcher of the CNR, Dept. of Pharmacology, University of Milano
- 1972-73 Research Assistant, Dept. of Cell Biology, The Public Health Res. Inst. of The City of N.Y. (USA)
- 1973-75 Research Associate, Dept. of Viral Oncology, The Rockefeller University, New York . (USA)
- 1975-82 Head of Research of CNR and Assistant Professor of Microbiology, University of Milano
- 1982-83 Visiting Associate Professor, Dept. of Molecular Virology, The Rockefeller University, New York, . (USA)
- 1982-99 Associate Professor of Microbiology and Virology, Faculty of Pharmacy, University of Milano.
- 2000-2010 Full Professor of Microbiology and Virology, Faculty of Pharmacy, University of Milano
- 2005-today Full Professor of Microbiology, Faculty of Pharmacy, Catholic University of Tirana (Albania)
- 2010-2015 Adjunct Professor of Applied Microbiology & Hygiene, Faculty of Pharmacy, University of Milano
- 2015 Retired from University of Milano
- 2013- today Director of the Doctorate on “Public health, molecular diagnosis of infectious diseases and pharmacovigilance”
- 2014-2018 Dean of the Faculty of Pharmacy, Catholic University of Tirana (Albania)

### MEMBERSHIP OF SCIENTIFIC SOCIETIES

- American Society for Microbiology (ASM)
- Società Italiana di Microbiologia generale e Biotecnologie Microbiche (SIMGBM)
- New York Academy of Sciences
- Società Italiana di Virologia (SIV)
- European Society of Virology (ESV)

### COLLABORATIONS WITH INTERNATIONAL RESEARCH GROUPS

- Dr. Genoveffa Franchini, NIH, NCI, Bethesda, Washington DC, USA
- Dr. Christiane Stahl-Hennig, German Primate Centre, Goettingen, Germany
- Dr. Jonathan L. Heeney, Dept. Veterinary Medicine, University of Cambridge, UK
- Dr. Béhazine Combadière, Hopital. Salpêtrière, Paris, France
- Dr. Mirdad Kazanji, Directeur Institut Pasteur de la Guyane, Guyane

### REVIEWER

Journal of Virological Methods; Future Medicine; Vaccine; Bio Techniques; Infectious Agents and Cancer; Green Facts (Editor for AIDS section); International Journal of Biomedical Science; Antonie van Leeuwenhoek Intern.; Journal of General and Molecular Microbiology; Molecular Biology Reports;; Antiviral research

### SCIENTIFIC PUBLICATIONS (LIMITED TO THE LAST 20 YEARS)

1. Biasolo M.A., Radaelli A., Del Pup L., Franchin E., De Giuli Morghen C. and Palù G. A new antisense tRNA construct for the genetic treatment of human immunodeficiency virus type 1 infection.  
J. Virol. 70: 2154-2161. 1996.
2. Cattozzo E.M., Stocker B.A.D., Radaelli A., De Giuli Morghen C., Tognon M. Expression and immunogenicity of V3 loop epitopes of HIV-1, isolates SC and WMJ2, inserted in Salmonella flagellin.  
J. Biotechnology, 56: 191-203.1997.
3. Radaelli A., Kraus G., Schmidt A., Badel P., McClure J., Hu S.L., Morton W., De Giuli Morghen C., Wong-Staal F. and Looney D. Genetic variation in a Human Immunodeficiency Virus type 2 live-virus M. nemestrina vaccine model.  
J. Virol., 72: 7871-7884. 1998.
4. Heeney J.L., van Gils M.E., van der Meide P., De Giuli Morghen C., Ghioni C., Gimelli M., Radaelli A., Davis D., Åkerblom L., Morein B. The role of type-1 and type-2 T-helper immune responses in HIV-1 vaccine protection.  
J. Med. Primatol. 27: 50-58. 1998.
5. Heeney J.L., Teeuwsen V.J.P., van Gils M., Bogers W.M.J., De Giuli Morghen C., Radaelli A., Barnett S., Morein B.,

Åkerblom L., Wang Y., Lehner T., and Davis D.  $\beta$ -Chemokines and neutralizing antibody titers correlate with sterilizing immunity generated in HIV-1 vaccinated macaques.  
Proc. Natl. Acad. Sci. USA 95: 10803-10808. 1998.

6. Heeney J.L., Mooij P., Bogers W., Davis D., Morein B., De Giuli Morghen C., Lehner T., Voss G., Bruck C., Koopman G., and Rosenwirth B. Multiple immune effector mechanisms as correlates of HIV-1 vaccine protection.  
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7. Heeney J.L., Åkerblom L., Barnett S., Bogers W.M.J., Davis D., Fuller D., Koopman G., Lehner T., Mooij P., Morein B., De Giuli Morghen C., Rosenwirth B., Verschoor E., Wagner R., Wolf H. HIV 1 vaccine induced immune responses which correlate with protection from SHIV infection: compiled preclinical efficacy data from trials with ten different HIV1 vaccine candidates.  
Immunol. Lett., 66:189 95. 1999.
8. Radaelli A., Gimelli M., Zanotto C., and De Giuli Morghen C. Correlation between the immune response elicited in rabbits by env-recombinant avipox vaccines and the inhibition of HIV-1 specific functions.  
FEMS Immunol. Med. Microbiol., 27: 211-218. 2000.
9. De Giuli Morghen C., Radaelli A., Zanotto C., Marconi P. and Manservigi R. Virus vectors for immunoprophylaxis.  
AIDS Rev. 2: 127-135. 2000.
10. Giangaspero M., Vacirca G., Harasawa R., Büttner M., Panuccio A., De Giuli Morghen C., Zanetti A., Belloli A and Verhulst A. Genotypes of pestivirus RNA detected in live virus vaccines for human use.  
J. Vet. Med. Sci. 63: 723-733. 2001.
11. Zanotto C., Giangaspero M., Buttner M., Braun A., De Giuli Morghen C., Elli V., Panuccio A., and Radaelli A. Evaluation of poliovirus vaccines for pestivirus contamination: non-specific amplification of poliovirus sequences by pan-pestivirus primers.  
J. Virol. Meth. 102: 167 172. 2002.
12. Gennari F., Biasolo M.A., Cancellotti E., Radaelli A., De Giuli Morghen C., Bozzoni I., Cereda P.M., Mengoli C., Palù G., and Parolin C. Additive and antagonist effects of therapeutic gene combinations for suppression of HIV 1 infection.  
Antiviral Res. 55: 77-90. 2002.
13. Radaelli A., Zanotto C., Perletti G., Elli V., Vicenzi E., Poli G., De Giuli Morghen C. Comparative analysis of immune responses and cytokine profiles elicited in rabbits by the combined use of recombinant fowlpox viruses, plasmids and virus-like particles in prime-boost vaccination protocols against SHIV.  
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14. Zanotto C., Elli V., Basavecchia V., Brivio A., Paganini M., Pinna D., Vicenzi E., De Giuli Morghen C., Radaelli A. Evaluation in rabbits of different anti-SHIV vaccine strategies based on DNA/fowlpox priming and virus-like particles boosting.  
FEMS Immunol. Med. Microbiol., 35: 59-65. 2003.
15. Radaelli A., Nacsá J., Tsai W.P., Edghill-Smith Y., Zanotto C., Elli V., Venzon D., Tryniszewska E., Markham P., Markham P., Panicali D., De Giuli Morghen C. and Franchini G. Prior DNA immunization enhances immune response to dominant and subdominant viral epitopes induced by a fowlpox based SIVmac vaccine in long term slow-progressor macaques infected with SIVmac251.  
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16. Nacsá J., Radaelli A., Edghill-Smith Y., Venzon D., Tsai W.P., De Giuli Morghen C., Panicali D., Tartaglia J., Franchini G. Avipox-based simian immunodeficiency virus (SIV) vaccines elicit a high frequency of SIV-specific CD4+ and CD8+ T-cell responses in vaccinia-experienced SIVmac251-infected macaques.  
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17. Radaelli A., Paganini M., Basavecchia V., Elli V., Neri M., Zanotto C., Pontieri E., and De Giuli Morghen C. Identification, molecular biotyping and ultrastructural studies of bacterial communities isolated from two damaged frescoes of St. Damian's monastery in Assisi.  
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18. Zanotto C., Paganini M., Elli V., Basavecchia V., Neri M., De Giuli Morghen C., and Radaelli A. Molecular and biological characterization of Simian Human Immunodeficiency virus-like particles produced by recombinant fowlpox viruses.  
Vaccine 23: 4745-4753. 2005.
19. Yu Xin, Wang J., De Giuli Morghen C., Radaelli A., Zanotto C., Beggio P. Anti-HIV-1 activities of 4 telomerase restrictors.  
WUJNS (Wuhan University Journal of Natural Sciences) 12: 1113-1117. 2007.
20. Radaelli A., Bonduelle O., Beggio P., Mahe B., Pozzi E., Elli V., Paganini M., Carlo Zanotto C., De Giuli Morghen C., Combadière B. Prime-boost immunization with DNA, recombinant fowlpox virus and VLPSHIV elicit both neutralizing antibodies and IFN $\square$ -producing T cells against the HIV-envelope protein in mice that control env-bearing tumour cells.  
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21. Pozzi E., Zanotto C., Pacchioni S., De Giuli Morghen C., and Radaelli A. MHC-restricted cytotoxic T-lymphocyte assay: An improved method based on naïve and SV40-immortalized rabbit epidermal target cells.  
J. Virol. Methods 155: 77-81. 2009.
22. Pozzi E., Basavecchia V., Zanotto C., Pacchioni S., De Giuli Morghen C., Radaelli A. Construction and characterization of recombinant fowlpox viruses expressing human papilloma virus E6 and E7 oncoproteins.  
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23. Rigano M.M., Manna C., Giulini A., Pedrazzini E., Capobianchi M., Castilletti C., Di Caro A., Ippolito G., Beggio P., De Giuli Morghen C., Monti L., Vitale A., Cardi T. Transgenic chloroplasts are efficient sites for high-yield production of the vaccinia virus envelope protein A27L in plant cells.  
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25. Pacchioni S., Volonté L., Zanotto C., Pozzi E., De Giuli Morghen C., and Radaelli A. Canarypox and fowlpox viruses as recombinant vaccine vectors: an ultrastructural comparative analysis.  
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26. Radaelli A., Pozzi E., Pacchioni S., Zanotto C., and De Giuli Morghen C. Fowlpox virus recombinants expressing HPV-16 E6 and E7 oncogenes for the therapy of cervical carcinoma elicit humoral and cell-mediated responses in rabbits.  
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27. Caron M., Besson G., Lekana-Douki Etenna S., Mintsa-Ndong A., Mourtas S., Radaelli A., De Giuli Morghen C., Loddo R., La Colla P., Antimisiaris S. and Kazanji M.. Protective properties of non-nucleoside reverse transcriptase inhibitor (MC1220) incorporated into liposome against intravaginal challenge of Rhesus Macaques with RT SHIV.  
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28. Zanotto C., Pozzi E., Pacchioni S., Volonté L., De Giuli Morghen C., and Radaelli A. Canarypox and fowlpox viruses as recombinant vaccine vectors: a biological and immunological comparison.  
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29. Buonaguro F.M., Campadelli-Fiume G., De Giuli Morghen C., and Palù G. Updates and achievements in virology.  
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30. Zanotto C., Pozzi E., Pacchioni S., Bissa M., De Giuli Morghen C., and Radaelli A. Construction and characterisation of a recombinant fowlpox virus that expresses the human papilloma virus L1 protein.  
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31. Radaelli A., De Giuli Morghen C., Zanotto C., Pacchioni S., Bissa M., Franconi R., Massa S., Paolini F., Muller A., Venuti A. A prime-boost strategy by DNA/fowlpox recombinants expressing a mutant E7 protein for the immunotherapy of HPV-associated cancers.  
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32. Bissa M., Pacchioni S., Zanotto C., De Giuli Morghen C. Radaelli A. GFP co-expression reduces the A33R gene expression driven by a fowlpox vector in replication permissive and non-permissive cell lines.  
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33. Pacchioni S., Bissa M., Zanotto C., De Giuli Morghen C., Illiano E., and Radaelli A. L1R, A27L, A33R and B5R vaccinia virus genes expressed by fowlpox recombinants as putative novel orthopoxvirus vaccines.  
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34. Bissa M., Pacchioni S.M., Zanotto C., De Giuli Morghen C., Illiano E., Granucci F., Zanoni I., Broggi A., Radaelli A. Systemically administered DNA and fowlpox recombinants expressing four vaccinia virus genes although immunogenic do not protect mice against the highly pathogenic IHD-J vaccinia strain.  
*Virus Research.* 178: 374-382. 2013. **IF 2.827**
35. Cordeiro M.N., Paolini F., Massa S., Curzio G., Illiano E., Duarte Silva A.J., Franconi R., Bissa M., De Giuli Morghen C., de Freitas A.C., Venuti A. Anti-tumor effects of genetic vaccines against HPV major oncogenes.  
*Human vaccines & immunotherapeutics* 11: 45-52. 2015. **IF 2.131**
36. Chiodini G., Pallavicini M., Zanotto C., Bissa M., Radaelli A., Straniero V., Bolchi C., Fumagalli L., Ruggeri P., De Giuli Morghen C., and Valoti E. Benzodioxane-benzamides as new bacterial cell division inhibitors.  
*Europ. J. of Med. Chemistry* 89: 252-265. 2015. **IF 3.45**
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38. Bissa M., Zanotto C., Pacchioni S.M., Volonté L., Venuti A., Lembo D. De Giuli Morghen C., Radaelli A. The L1 protein of human papilloma virus 16 expressed by a fowlpox virus recombinant can assemble into virus-like particles in mammalian cell lines but elicits a non-neutralising humoral response.  
*Antiviral Research* 116: 67-75. 2015. **IF 3.938**
39. Mezzanotte V., Marazzi F., Bissa M., Pacchioni S., Binelli A., Parolini M., Magni S., Ruggeri F.M., De Giuli Morghen C., Zanotto C., Radaelli A. Removal of enteric viruses and *Escherichia coli* from municipal treated effluent by zebra mussels  
*Science of The Total Environment* 539: 395-400. 2016. **IF 4.10**
40. Straniero V., Pallavicini M., Chiodini G., Zanotto C., Volonté L., Radaelli A., Bolchi C., Fumagalli L., Sanguinetti M., Menchinelli G., Delogu G., Battah B., De Giuli Morghen C., Valoti E. 3-(Benzodioxan-2-ylmethoxy)-2,6-difluorobenzamides bearing hydrophobic substituents at the 7-position of the benzodioxane nucleus potently inhibit methicillin-resistant *Sa* and *Mtb* cell division.  
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41. Illiano E., Demurtas O.C., Massa S., Di Bonito P., Consalvi V., Chiaraluce R., Zanotto C., De Giuli Morghen C., Radaelli A., Venuti A., Franconi R.  
Production of functional, stable, unmutated recombinant human papillomavirus E6 oncoprotein: implications for HPV-tumor diagnosis and therapy.  
*J. Transl. Medicine* 14: 224-237. 2016. **IF 3.694**
42. Zanotto C., Bissa M., Illiano E., Mezzanotte V., Marazzi F., Turolla A., Antonelli M., De Giuli Morghen C., and Radaelli A.  
Identification of antibiotic-resistant *Escherichia coli* isolated from a municipal wastewater treatment plant.  
*Chemosphere* 164: 627-633. 2016. **IF 3.34**
43. Illiano E., Bissa M., Paolini F., Zanotto C., De Giuli Morghen C., Massa S., Franconi R., Radaelli A., and Venuti A. Improving a prime/boost (DNA/fowlpox) strategy by expressing a mutant HPV16 E6 protein fused with coat protein of Potato Virus X.  
*Virus Res.* 225: 82-90. 2016. **IF 2.324**
44. Bissa M., Quaglino E., Zanotto C., Pacchioni S., De Giuli Morghen C., Illiano E., Cavallo F. and Radaelli A.

Protection of mice against the highly pathogenic VV<sub>IHD-J</sub> by DNA and fowlpox recombinant vaccines, administered by electroporation and intranasal routes, correlates with serum neutralizing activity.  
Antiviral Res. 134: 182-191. 2016 . **I.F. 4.909**

45. Straniero V., Zanotto C., Straniero L., Casiraghi A., Duga S., Radaelli A., De Giuli Morghen C., and Valoti E. 2,6-Difluorobenzamide inhibitors of the bacterial cell division protein FtsZ: design, synthesis and structure-activity relationships. ChemMedChem. 12: 1303-1318. 2017. **IF 3.225**
46. Ulrike Sauermann, Nicole Stolte-Leeb, Katharina Raue, Massimiliano Bissa, Antonia Radaelli, Carlo Zanotto, Michael Krawczak, Matthias Tenbusch, Klaus Überla, Brandon Keele, Carlo De Giuli Morghen, Sieghart Sopper, and Christiane Stahl-Hennig. Vector order determines protection against pathogenic simian immunodeficiency virus infection in a triple component vaccine by balancing CD4<sup>+</sup> and CD8<sup>+</sup> T-cell responses. J. Virology 2017. Sep 13. pii: JVI.01120-17. doi: 10.1128/JVI.01120-17. **IF 4.663**
47. Bissa M., Forlani G., Zanotto C., Tosi G., De Giuli Morghen C., Accolla R., Radaelli A. Fowlpoxvirus recombinants coding for the *CIITA* gene increase the expression of endogenous MHC-II and Fowlpox *gag/pro* and *env* SIV transgenes PLoS One. 2018 Jan 31;13(1). doi: 10.1371/journal.pone.0190869. eCollection 2018.. **IF 3.54**

**Research Gate Scores:** H-index= 18, Research items: 168; Reads: 3,833; Citations: 996

**The research group that Prof. De Giuli Morghen is coordinating is composed of:**

- 1 associate professor
- 1 research assistant
- 1 PhD (temporarily in leave of absence at NIH, Bethesda, USA)
- 2 Post-Doc students
- 1 graduate student

Milano, march 10, 2019.

Carlo De Giuli Morghen