

AI FINI DELLA PUBBLICAZIONE

**Decreto Rettore Università di Roma "La Sapienza" n. 1414/2023 del 05/06/2023**

Il seguente curriculum vitae è stato redatto in conformità a quanto prescritto dall'art. 4 del Codice in materia di protezione dei dati personali e dall'art. 26 del D. Lgs. 14 marzo 2013, n. 33, al fine della pubblicazione.

Inoltre, il sottoscritto Soriani Marco consapevole della responsabilità penale prevista, dall'art. 76 del D.P.R. 445/2000, per le ipotesi di falsità in atti e dichiarazioni mendaci ivi indicate:

**DICHIARA**

che le informazioni sotto riportate sono veritiere.

In fede,

Dott. Marco Soriani

Siena, 21 Luglio 2023

**MARCO SORIANI**  
*Curriculum Vitae*

**Part I – General Information**

Full Name	Marco Soriani
Spoken Languages	Italian

**Part II – Education**

- 1996 Doctoral degree in Biochemistry by the University of Zürich, discussing a thesis entitled "Characterisation of nucleoside phosphatase activities on pig zymogen granule membrane" (supervisor Dr. A.U. Freiburghaus, internal supervisor Prof. P. Sonderegger).
- 1993 Ph.D. studentship in Biochemistry at the Pancreatitis Research Laboratory of the University Hospital of Zürich (Switzerland), under the supervision of Dr. A.U. Freiburghaus. The goal of the project was the characterization of pancreas zymogen granule proteins in relation to their role during exocytosis of pancreatic acinar cells.
- 1992 Post-graduate fellow at the Italian National Institute of Health to investigate the protective role of Ascorbic Acid in patients affected by AIDS.
- 1991 Visiting post-graduate fellow at Cell Biology Department (Director Prof. G. D'Agnolo) of the Italian National Institute of Health in Rome.
- 1990 Degree in Biological Sciences with full marks (110/110, summa cum Laude), by discussing an experimental thesis in Biochemistry entitled: "Role of Ascorbic Acid during iron-mediated oxidative stress in human plasma" (supervisor Prof. M. Ferrari).
- 1985 Scientific High School certificate at the Liceo Statale "F. D'Assisi", in Rome (Italy)



AI FINI DELLA PUBBLICAZIONE

Part III – Appointments

ReiThera Srl, Rome, Italy

Apr 2018-to now

Job Title

- **Project Director**
  - Lead and coordination of research project activities
  - Contribution to company strategic decisions
  - Support of BD operations
  - Increase company networking and funding opportunities

Fondazione Toscana Life Sciences, Siena, Italy

Jan 2017-Mar 2018

Job Title

- **R&D Consultant**
  - Scientific advisor for R&D initiatives

IRBM Science Park, Rome, Italy

June 2016-Dec 2016

Job Title

- **Director Department of Biology**
  - Scientific and managerial coordination of the activities of the Biology Department
  - Increase company networking and funding opportunities
  - Support technology transfer
  - Talent scouting

Novartis/GSK Vaccines S.r.l., Siena, Italy

Aug 2008-May 2016

Job Title

2010 - 2016

- **Project Leader for the Non-Typeable *Haemophilus influenzae* vaccine project**
  - Coordination of project activities leading to the selection, characterization and pre-clinical development of new vaccine candidates
  - Cross-function interactions to assure clinical, legal and intellectual property obligations
  - Networking with world-class scientists to bring cutting edge technology and ideas to different stages of vaccine development
  - Monitoring of innovation changes in relevant basic research fields
  - Fast action in solving problems and flexibility in addressing company needs

Job Title

2008 - 2016

- **Head of the *In vitro* Cell Biology Unit**
  - Coordinate discoveries activities aiming to characterize the mechanism of action of vaccines
  - Vaccine projects supported included MenB, GBS, *Streptococcus pneumoniae*, GAS, *Clostridium difficile*, *Staphylococcus aureus*, Non-Typeable *Haemophilus influenzae* and pathogenic *E. coli* species
  - Support to Research innovation by developing new physiological and robust bioassays
  - Establishment of a Confocal Imaging Platform that in the last five years has supported several important achievements in the understanding of vaccine antigen functionality
  - Development of international and local scientific networks to access to crucial



AI FINI DELLA PUBBLICAZIONE

- innovative technologies, such as metagenomics and biophotonics
- Management of a number of grant applications and European projects, both as member of boards and coordinator (FP7, ITN and IMI)

**Chiron S.r.l., Siena, Italy**

Aug 2002 – July 2008

**Job Title**

2006 - 2008

• **Head of Host Pathogen Interaction Laboratory**

- Establishment and coordination of junior group of scientists
- Talent recruitment, including PhD and Post-Docs
- Setting-up of a confocal imaging facility
- Coordination of the BacAbs European Consortium on biochemical and structural characterization of the cognate interaction between antibody and target antigen

**Job Title**

2002 – 2006

• **Investigator**

- Contribution to the development of a vaccine against GBS by playing a pivotal role in the discovery of new antigenic molecules such as pili and BibA
- Elucidation of the signalling events triggered by pili during bacterial translocation of the epithelial barrier
- Setting-up of physiological cellular models to study antigen contribution to host-pathogen interaction
- Establishment of important scientific collaborations leading to vaccine discovery advancements

**Department of Pathology and Microbiology, University of Bristol (UK)**

Jan 1999 – July 2002

**Job Title**

2001 – 2002

• **Medical Research Council fellow**

- Research Officer in the group of Prof. M. Virji to study the signalling events involved during *Neisseria meningitidis* and *Haemophilus influenzae* infection of target host cells
- Management of PhD students
- Experience as an independent researcher
- Teaching and training

**Job Title**

1999 – 2001

• **Senior research associate**

- Senior research associate in the group of Prof. T.R. Hirst to investigate the signalling properties of the B subunit of cholera-like enterotoxins in epithelial and immune cells
- Management of undergraduate students
- Experience as an independent researcher
- Teaching and training

**Department of Pharmacy and Pharmacology of the University of Bath (UK)**

1998 -1999

**Job Title**

• **Research Officer**

- Research Officer in the group of Prof. Rex M. Tyrrell to work on the modulation of oncogene expression in human skin cells by UV radiation
- Experience as an independent researcher
- Teaching and training

**Swiss Institute for Experimental Cancer Research, Epalinges (Switzerland)**

1996 -1998



## AI FINI DELLA PUBBLICAZIONE

### Job Title

- **Post-doctoral fellow**
- Post-doctoral fellow in the Carcinogenesis Unit to carry out a research project on the role of UVB oxidative component in gene expression of stress response enzymes
- Experience as an independent researcher

### **Part IV – Teaching experience**

- Teaching of Biochemistry' laboratory skills to undergraduate students at University of Zurich, Switzerland dal 01 January 1994 to 31 December 1995.
- Supervision of undergraduate students (Relatore tesi):
  - Candidato: Fulvia Amerighi. Università degli studi di Siena. Corso di Laurea Specialistica in Biologia sanitaria. Anno accademico 2008/2009.
  - Candidato: Lapo Buzzigoli. Università Vita-Salute San Raffaele, Milano. Facoltà di Medicina e Chirurgia. Anno accademico 2009/2010.
  - Candidato: Vanessa Zurli. Università degli studi di Siena. Dipartimento di Biologia Molecolare e Cellulare. Anno accademico 2011/2012.
- Supervision of PhD students (Relatore tesi):
  - Candidato: Isabella Santi. Università degli studi di Padova. Dipartimento di scienze biomediche. Ciclo XIX. Anno accademico 2007/2008.
  - Candidato: Alfredo Pezzicoli. Settore BIO10. Università degli studi di Siena. Dipartimento di Biotecnologie, Chimica e Farmacia. Ciclo XXII. Anno accademico 2008/2009.
  - Candidato: Giovanni Gancitano. Settore BIO11. Università degli studi di Bologna. Dipartimento di Biologia Cellulare, Molecolare e Industriale. Ciclo XXIII. Anno accademico 2010/2011.
  - Candidato: Benedetta Di Palo. Settore BIO11. Università degli studi di Bologna. Dipartimento di Biologia Cellulare, Molecolare e Industriale. Ciclo XXIV. Anno accademico 2011/2012.
  - Candidato: Pasquale Marrazzo. Settore BIO11. Università degli studi di Bologna. Dipartimento di Biologia Cellulare e Molecolare. Ciclo XXVII. Anno accademico 2013/2014.
  - Candidato: Lucia Lapazio. Settore BIO10. Università degli studi di Siena. Dipartimento di Biotecnologie, Chimica e Farmacia. Ciclo XXVIII. Anno accademico 2014/2015.

### **Part V - Society memberships, Awards and Honours**

- GSK Vaccines Innovation game 2015 (Wavre, Belgium). Awarded as “Best Innovator” in GSK Vaccines for the “METABIOVAX” project.
- Chair of the ESF-EMBO Symposium: Symbiomes on Systems Biology of Host-Microbiome Interactions, Polonia Castle Pultusk.conference (<http://symbiomes.esf.org/>).
- Invited member of Faculty of 1000 (F1000). Faculty of Infectious diseases (bacterial infections area) (<http://f1000.com/prime/thefaculty/member/49999771097567164>).
- Expert/reviewer/Vice Chair of EC projects in the context of the H2020 programme (ITN/EID/Marie Curie Fellowship).
- National Scientific Qualification as Full Professor in Microbiology. Certification validity: 6 Apr 2017- 6 Apr 2028. Settore concorsuale: 05/I2  
Certification by Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR), Italy.
- Trainings
  - M1 Managerial Skills
  - Course on Emotional Intelligence
  - Course on Project Management
  - Course on Presentation Skills
  - Course on Building Leadership
  - Course on Management of Stress and Resilience



**Part VI - Funding Information**

1. **BACABS (Scientific coordinator): Assessment of Structural Requirements in Complement-Mediated Bactericidal Events: Towards a Global Approach to the Selection of New Vaccine Candidates.** Sixth Research Framework Programme of the European Union (ref. LSHB-CT-2006-037325, 2007).
2. **CLOSTNET (Host supervisor): A Clostridal Biology Network to Facilitate European-wide Medical Countermeasures and Commercial Exploitation.** Seventh Research Framework Programme of the European Union. Grant agreement no.: 237942 Date of approval of Annex I by REA: 27th August 2009).
3. **EIMID (Host supervisor): European Initiative for basic research in Microbiology and Infectious Diseases.** EIMID ITN (Initial Training Networks) Seventh Research Framework Programme of the European Union (FP7-PEOPLE-2010-ITN) PITN-GA-2010-264388.
4. **RAPP-ID (Project board member): Development of Rapid Point-of-Care test Platforms for Infectious Diseases.** IMI 2011 ([www.rapp-id.eu](http://www.rapp-id.eu)).
5. **DISCO (Coordinator): A multidisciplinary Doctoral Industrial School on novel preventive strategies against E. Coli infections.** MC-ITN (Initial Training Networks (ITN)) FP7-PEOPLE-2012-ITN.

**Part VII – Research Activities**

Keywords	Brief Description
Vaccines	<p>I am a former microbial cellular biologist, currently acting as Project Director at Reithera Srl, Rome, Italy. In this role, I lead the Project Management Unit and coordinate R&amp;D and Technology projects aiming to the development of advanced therapies and vaccines. In this context, it is of relevance the coordination of a project in collaboration with the Sabin Vaccine Institute (Washington DC, US) for the development of a vaccine against Marburg and Ebola infections. In the field of therapeutic vaccine, I have managed a project with Janssen Therapeutics aiming to exploit vectored vaccines for immune-therapy applications. Nevertheless, I am author of more than sixty scientific papers in high-ranking international journals and I have been in the board of several EU projects and currently acts as evaluator and Vice Chair for EU funding programmes such as Marie Curie Fellowships, ITN and EID. Thanks to the wide experience in vaccine technologies, I have also established a close interaction with BMGF and CEPI with the goal of exploiting new technologies to allow a sustainable and affordable production of vaccines in Low Medium Income Countries. Regarding previous research activities, in 2002 I joined Rino Rappuoli's team at the Vaccine Research Centre in Siena. During this period, I have built a prestigious career in the vaccine world, reaching important objectives in the R&amp;D context from the discovery on novel vaccine candidates to the direction of scientific programmes. During this period, I have been R&amp;D Project Leader and Cell Biology Unit Head at Novartis Vaccines and GSK Vaccines. In this role, I have coordinated several projects leading to the development of innovative vaccines against both bacterial and viral microorganisms. The scientific approach was based on different technologies, including formulated recombinant antigens, outer membrane vesicles, self-amplifying RNA and viral vectors. These activities were supported by the urgency to create an international and local scientific network to access to crucial innovative technologies. Regarding initial research activities, after qualifying in Biology at La Sapienza University in Rome, I studied for a doctoral degree in Biochemistry at the University of Zurich. In 1996, I began a post-doctoral tenure at the Swiss Institute for Experimental Cancer Research, Lausanne (Switzerland) and then moved to UK as a Research Officer at the University of Bath and then Bristol (UK).</p>
Infectious Diseases	
Cellular and Molecular Microbiology	
Host-cell interaction	
In vitro and In vivo Imaging	
Genomics	
Microbiome	

**Part VIII – Summary of Scientific Achievements**

*Indicators are calculated on the total number of publications produced by the candidate*

Product type	Number	Database	Start	End
Papers	62	Scopus	1992	2022
Patents	6	Google patents	2006	2020

Hirsch (H) index	28
Total Citations	2241
Average Citations per Product	36.145

*Indicators are calculated on the number of publications valid to the participation of the call*

Product type	Number	Database	Start	End
Papers	16	Clarivate (Journal Citation reports)	2013	2023

Hirsch (H) index = 12

Total Citations	499
Average Citations per Product	31.19
Total Impact factor	108.13
Average Impact Factor per Product	6.76

**Part IX – Patents**

- MUTANT BACTERIA FOR PRODUCTION OF GENERALIZED MODULES FOR MEMBRANE ANTIGENS.**  
 WO 20160067326 (Arico M, Ercoli M, Norais N, Soriani M, Tani C)  
 Gram-negative bacterial strains are generated by inactivating at least one LytM catalytic domain-containing protein, such as NT013, NT017 and NT022 of Non-Typeable H. influenzae. The vesicles from these strains are useful for vaccination. A pharmaceutical composition comprising vesicles from a Gram-negative bacterium in which at least one LytM catalytic domain-containing protein is inactivated and a pharmaceutically acceptable carrier is claimed (Published 2020).
- ANTIGENS AND ANTIGEN COMBINATIONS**  
 EP 2841096 A2 (WO2013160335A2) (Soriani M, Scarselli M, Norais N, Gomes Moriel D, Rossi Paccani S)  
 NTHI protein antigens have been identified and found to be conserved across several Haemophilus influenzae pathogenic strains. They have been isolated, cloned from a reference strain and tested for immunogenicity. Methods for immunization and vaccines derived thereof are also disclosed (Published 2019).
- NOVEL MUCINASE FOR USE IN THERAPY OR PROPHYLAXIS**  
 WO 2014102694 A1 (Soriani M, Nesta B, Valeri M, Serino L)  
 The invention relates to therapeutic or prophylactic treatment of an individual against a disease in which mucus is involved and/or an infectious disease. The invention also relates to the preparation of a mucinase suitable for the treatment (Published 2014).
- COMPOSITION FOR TREATING OR PREVENTING STREPTOCOCCAL INFECTIONS**  
 WO 2009109363 A1 (Soriani M, Pezzicoli A, Santi I, Grandi G)  
 Antibodies which inhibit enzymatic activity of streptococcal pullulanases, as well as streptococcal pullulanases and immunogenic fragments thereof which induce the antibodies, can be used to reduce the risk or and/or treat streptococcal infections (Published 2009).
- SERUM RESISTANCE FACTORS OF GRAM POSITIVE BACTERIA**  
 EP1919934A2, US8105612, US8377446, US20090214537, US20120171211, WO2006130328A3 (Soriani M, Santi I)  
 A newly identified serum resistance factor of gram-positive bacteria can be used to treat or prevent bacterial infection (Published 2006).

## AI FINI DELLA PUBBLICAZIONE

### 6. NEUTRALIZING ANTIBODIES AGAINST THE PULLULANASE ASSOCIATED WITH THE SURFACE (SAP) OF *S. AGALACTIAE*

ITMI20080359A1

(Soriani M, Pezzicoli A, Santi I, Grandi G)

L'invenzione riguarda anticorpi neutralizzanti contro la pullulanasi associata alla superficie di *Streptococcus agalactiae* e loro utilizzi terapeutici (Published 2009).

#### Part X - Selected Publications (for the scope of the call)

- 1) Simone Lanini, Stefania Capone, Andrea Antinori, Stefano Milleri, Emanuele Nicastri, Roberto Camerini, Chiara Agrati, Concetta Castillette, Federica Mori, Alessandra Sacchi, Giulia Matusali, Roberta Gagliardini, Virginia Ammendola, Eleonora Cimini, Fabiana Grazioli, Laura Scorzolini, Federico Napolitano, Maria M. Plazzi, **Marco Soriani**, Aldo De Luca, Simone Battella, Andrea Sommella, Alessandra M. Contino, Federica Barra, Michela Gentile, Angelo Raggioli, Yufang Shi, Enrico Girardi, Markus Mäurer, Maria R. Capobianchi, Francesco Vaia, Mauro Piacentini, Guido Kroemer, Alessandra Vitelli, Stefano Colloca, Antonella Folgori, Giuseppe Ippolito. GRAd-COV2, a gorilla adenovirus-based candidate vaccine against COVID-19, is safe and immunogenic in younger and older adults. *Sci. Transl. Med.* 14 (627) (2022). JIF= 17.1
- 2) Stefania Capone, Angelo Raggioli, Michela Gentile, Simone Battella, Armin Lahm, Andrea Sommella, Alessandra Maria Contino, Richard A Urbanowicz, Romina Scala, Federica Barra, Adriano Leuzzi, Eleonora Lilli, Giuseppina Miselli, Alessia Noto, Maria Ferraiuolo, Francesco Talotta, Theocharis Tsoleridis, Concetta Castillette, Giulia Matusali, Francesca Colavita, Daniele Lapa, Silvia Meschi, Maria Capobianchi, **Marco Soriani**, Antonella Folgori, Jonathan K Ball, Stefano Colloca, Alessandra Vitelli. Immunogenicity of a new gorilla adenovirus vaccine candidate for COVID-19. *Molecular Therapy* S1525-0016(21)00210-0 doi: 10.1016/j.ymthe.2021.04.022 (2021). JIF= 12.91
- 3) Rojas-Lopez M, Martinelli M, Brandi V, Jubelin G, Polticelli F, **Soriani M**, Pizza M, Desvaux M, Rosini R. Identification of lipid A deacylase as a novel, highly conserved and protective antigen against enterohemorrhagic *Escherichia coli*. *Sci Rep.* 9(1):17014 (2019). JIF= 3.998
- 4) **Soriani M**. Unraveling *Neisseria meningitidis* pathogenesis: from functional genomics to experimental models. *F1000 Res.* 6:1228 (2017). JIF= 0.939
- 5) Marrazzo P, Maccari S, Taddei AR, Bevan L, Telford JL, **Soriani M** and Pezzicoli A. 3D Reconstruction of the Human Airway Mucosa In Vitro as an Experimental Model to Study NTHi Infections. *PLoS One* 21;11(4) (2016). JIF = 2.806
- 6) Amerighi F, Valeri M, Donnarumma D, Maccari S, Moschioni M, Taddei A, Lapazio L, Pansegrau W, Buccato S, De Angelis G, Ruggiero P, Masignani V, **Soriani M**, Pezzicoli A. Identification of a Monoclonal Antibody Against Pneumococcal Pilus 1 Ancillary Protein Impairing Bacterial Adhesion to Human Epithelial Cells. *J Infect Dis*, Sep 23 (2015). JIF= 6.344
- 7) Baddal B, Muzzi A, Censini S, Calogero RA, Torricelli G, Guidotti S, Taddei AR, Covacci A, Pizza M, Rappuoli R, **Soriani M**, Pezzicoli A. Dual RNA-seq of Nontypeable *Haemophilus influenzae* and Host Cell Transcriptomes Reveals Novel Insights into Host-Pathogen Cross Talk. *mBio.* Nov 17; 6(6), (2015). JIF= 6.975
- 8) Valeri M, Rossi Paccani S, Kasendra M, Nesta B, Serino L, Pizza M, **Soriani M**. Pathogenic *E. coli* Exploits SslE Mucinase Activity to Translocate through the Mucosal Barrier and Get Access to Host Cells. *PLoS One.* Mar 19; 10(3) (2015). JIF = 3.057
- 9) Biagini M, Garibaldi M, Aprea S, Pezzicoli A, Doro F, Becherelli M, Taddei AR, Tani C, Tavarini S, Mora M, Teti G, D'Oro U, Nuti S, **Soriani M**, Margarit I, Rappuoli R, Grandi G, Norais N. The Human Pathogen *Streptococcus Pyogenes* Releases Lipoproteins as Lipoprotein-rich Membrane Vesicles. *Mol Cell Proteomics*, Aug; 14(8):2138-49 (2015). JIF= 5.912
- 10) Ercoli G, Tani C, Pezzicoli A, Vacca I, Martinelli M, Pecetta S, Petracca R, Rappuoli R, Pizza M, Norais N, **Soriani M**, Aricò B. LytM proteins play a crucial role in cell separation, outer membrane composition, and pathogenesis in nontypeable *Haemophilus influenzae*. *mBio.* Feb 24; 6(2) (2015). JIF= 6.975
- 11) Altindis E, Cozzi R, Di Palo B, Necchi F, Mishra RP, Fontana MR, **Soriani M**, Bagnoli F, Maione D, Grandi G, Liberatori S. Protectome analysis: a new selective bioinformatics tool for bacterial vaccine candidate discovery. *Mol Cell Proteomics.* Nov 3 (2014). JIF= 6.564
- 12) Nesta B, Valeri M, Spagnuolo A, Rosini R, Mora M, Donato P, Alteri CJ, Del Vecchio M, Buccato S, Pezzicoli A, Bertoldi I, Buzzigoli L, Tuscano G, Falduto M, Rippa V, Ashhab Y, Bensi G, Fontana MR,

- Seib KL, Mobley HL, Pizza M, **Soriani M**, Serino L. SsIE elicits functional antibodies that impair in vitro mucinase activity and in vivo colonization by both intestinal and extraintestinal *Escherichia coli* strains. *PLoS Pathog.* 10(5) (2014). JIF= 7.562
- 13) De Chiara M, Hood D, Muzzi A, Pickard DJ, Perkins T, Pizza M, Dougan G, Rappuoli R, Moxon ER, **Soriani M**, Donati C. Genome sequencing of disease and carriage isolates of nontypeable *Haemophilus influenzae* identifies discrete population structure. *Proc Natl Acad Sci U S A.* 111(14):5439-44 (2014). JIF= 9.674
- 14) Kasendra M, Barrile R, Leuzzi R, **Soriani M**. Clostridium difficile toxins facilitate bacterial colonization by modulating the fence and gate function of colonic epithelium. *J Infect Dis.* 209(7):1095-104 (2014). JIF= 5.997
- 15) Pastorello I, Rossi Paccani S, Rosini R, Mattera R, Ferrer Navarro M, Urosev D, Nesta B, Lo Surdo P, Del Vecchio M, Ripa V, Bertoldi I, Gomes Moriel D, Laarman AJ, van Strijp JA, Daura X, Pizza M, Serino L, **Soriani M**. EsiB, a novel pathogenic *Escherichia coli* secretory immunoglobulin A-binding protein impairing neutrophil activation. *mBio.* 23;4(4) (2013). JIF= 7.786
- 16) Di Palo B, Ripa V, Santi I, Brettoni C, Muzzi A, Metruccio MM, Grifantini R, Telford JL, Paccani SR, **Soriani M**. Adaptive response of Group B streptococcus to high glucose conditions: new insights on the CovRS regulation network. *PLoS One.* 8(4) (2013). JIF= 3.534

#### Part XI - All Publications

- 1) Simone Lanini, Stefania Capone, Andrea Antinori, Stefano Milleri, Emanuele Nicastrì, Roberto Camerini, Chiara Agrati, Concetta Castillette, Federica Mori, Alessandra Sacchi, Giulia Matusali, Roberta Gagliardini, Virginia Ammendola, Eleonora Cimini, Fabiana Grazioli, Laura Scorzolini, Federico Napolitano, Maria M. Plazzi, **Marco Soriani**, Aldo De Luca, Simone Battella, Andrea Sommella, Alessandra M. Contino, Federica Barra, Michela Gentile, Angelo Raggioli, Yufang Shi, Enrico Girardi, Markus Maeurer, Maria R. Capobianchi, Francesco Vaia, Mauro Piacentini, Guido Kroemer, Alessandra Vitelli, Stefano Colloca, Antonella Folgori, Giuseppe Ippolito. GRAd-COV2, a gorilla adenovirus-based candidate vaccine against COVID-19, is safe and immunogenic in younger and older adults. *Sci. Transl. Med.* 14 (627) (2022).
- 2) Stefania Capone, Angelo Raggioli, Michela Gentile, Simone Battella, Armin Lahm, Andrea Sommella, Alessandra Maria Contino, Richard A Urbanowicz, Romina Scala, Federica Barra, Adriano Leuzzi, Eleonora Lilli, Giuseppina Miselli, Alessia Noto, Maria Ferraiuolo, Francesco Talotta, Theocharis Tsoleridis, Concetta Castillette, Giulia Matusali, Francesca Colavita, Daniele Lapa, Silvia Meschi, Maria Capobianchi, **Marco Soriani**, Antonella Folgori, Jonathan K Ball, Stefano Colloca, Alessandra Vitelli. Immunogenicity of a new gorilla adenovirus vaccine candidate for COVID-19. *Molecular Therapy* S1525-0016(21)00210-0 doi: 10.1016/j.ymthe.2021.04.022 (2021).
- 3) Rojas-Lopez M, Martinelli M, Brandi V, Jubelin G, Polticelli F, **Soriani M**, Pizza M, Desvaux M, Rosini R. [Identification of lipid A deacylase as a novel, highly conserved and protective antigen against enterohemorrhagic \*Escherichia coli\*](#). *Sci Rep.* 9(1):17014 (2019).
- 4) **Soriani M**. Unraveling *Neisseria meningitidis* pathogenesis: from functional genomics to experimental models. *F1000 Res.* 6:1228 (2017).
- 5) Monteiro R, Ageorges V, Rojas-Lopez M, Schmidt H, Weiss A, Bertin Y, Forano E, Jubelin G, Henderson IR, Livrelli V, Gobert AP, Rosini R, **Soriani M**, Desvaux M. A secretome view of colonisation factors in Shiga toxin-encoding *Escherichia coli* (STEC): from enterohaemorrhagic *E. coli* (EHEC) to related enteropathotypes. *FEMS Microbiol Lett* 363(16) (2016).
- 6) Marrazzo P, Maccari S, Taddei AR, Bevan L, Telford JL, **Soriani M** and Pezzicoli A. 3D Reconstruction of the Human Airway Mucosa In Vitro as an Experimental Model to Study NTHi Infections. *PLoS One* 21;11(4) (2016).
- 7) Fiaschi L, Di Palo B, Scarselli M, Pozzi C, Tomaszewski K, Galletti B, Nardi-Dei V, Arcidiacono L, Mishra RP, Mori E, Pallaoro M, Falugi F, Torre A, Fontana MR, **Soriani M**, Bubeck Wardenburg J, Grandi G, Rappuoli R, Ferlenghi I, Bagnoli F. An auto-assembling detoxified *Staphylococcus aureus* alpha-hemolysin mimicking the wild type cytolytic toxin. *Clin Vaccine Immunol.* Mar 30 (2016).
- 8) Biagini M, Garibaldi M, Aprea S, Pezzicoli A, Doro F, Becherelli M, Taddei AR, Tani C, Tavarini S, Mora M, Teti G, D'Oro U, Nuti S, **Soriani M**, Margarit I, Rappuoli R, Grandi G, Norais N. The Human Pathogen *Streptococcus Pyogenes* Releases Lipoproteins as Lipoprotein-rich Membrane Vesicles. *Mol Cell Proteomics*, Aug; 14(8):2138-49 (2015).

- 9) Amerighi F, Valeri M, Donnarumma D, Maccari S, Moschioni M, Taddei A, Lapazio L, Pansegrau W, Buccato S, De Angelis G, Ruggiero P, Masignani V, **Soriani M**, Pezzicoli A. Identification of a Monoclonal Antibody Against Pneumococcal Pilus 1 Ancillary Protein Impairing Bacterial Adhesion to Human Epithelial Cells. *J Infect Dis*, Sep 23 (2015).
- 10) Baddal B, Muzzi A, Censini S, Calogero RA, Torricelli G, Guidotti S, Taddei AR, Covacci A, Pizza M, Rappuoli R, **Soriani M**, Pezzicoli A. Dual RNA-seq of Nontypeable *Haemophilus influenzae* and Host Cell Transcriptomes Reveals Novel Insights into Host-Pathogen Cross Talk. *mBio*. Nov 17; 6(6), (2015).
- 11) Valeri M, Zurli V, Ayala I, Colanzi A, Lapazio L, Corda D, **Soriani M**, Pizza M, Rossi Paccani S. The *Neisseria meningitidis* ADP-ribosyltransferase NarE enters human epithelial cells and disrupts epithelial monolayer integrity. *Plos ONE* May 21;10(5), (2015).
- 12) Ercoli G, Baddal B, Marchi S, Petracca R, Aricò B, Pizza M, **Soriani M**, Rossi-Paccani S. Development of a serological assay to predict antibody bactericidal activity *versus* non-typeable *Haemophilus influenzae*. *BMC microbiology*, Apr 18;15:87 (2015).
- 13) Ercoli G, Tani C, Pezzicoli A, Vacca I, Martinelli M, Pecetta S, Petracca R, Rappuoli R, Pizza M, Norais N, **Soriani M**, Aricò B. LytM proteins play a crucial role in cell separation, outer membrane composition, and pathogenesis in nontypeable *Haemophilus influenzae*. *mBio*. Feb 24; 6(2) (2015).
- 14) Valeri M, Rossi Paccani S, Kasendra M, Nesta B, Serino L, Pizza M, **Soriani M**. Pathogenic *E. coli* Exploits SslE Mucinase Activity to Translocate through the Mucosal Barrier and Get Access to Host Cells. *PLoS One*. Mar 19; 10(3) (2015).
- 15) Barrile R, Kasendra M, Paccani SR, Merola M, Pizza M, Baldari C, **Soriani M**, Aricò B. *Neisseria meningitidis* subverts the polarized organization and intracellular trafficking of host cells to cross the epithelial barrier. *Cell Microbiol*. Mar 19 (2015).
- 16) Giufrè M, De Chiara M, Censini S, Guidotti S, Torricelli G, De Angelis G, Cardines R, Pizza M, Muzzi A, Cerquetti M, **Soriani M**. Whole-Genome Sequences of Nonencapsulated *Haemophilus influenzae* Strains Isolated in Italy. *Genome Announc*. Mar 26; 3(2) (2015).
- 17) Altindis E, Cozzi R, Di Palo B, Necchi F, Mishra RP, Fontana MR, **Soriani M**, Bagnoli F, Maione D, Grandi G, Liberatori S. Protectome analysis: a new selective bioinformatics tool for bacterial vaccine candidate discovery. *Mol Cell Proteomics*. Nov 3 (2014).
- 18) Nesta B, Valeri M, Spagnuolo A, Rosini R, Mora M, Donato P, Alteri CJ, Del Vecchio M, Buccato S, Pezzicoli A, Bertoldi I, Buzzigoli L, Tuscano G, Falduto M, Rippa V, Ashhab Y, Bensi G, Fontana MR, Seib KL, Mobley HL, Pizza M, **Soriani M**, Serino L. SslE elicits functional antibodies that impair in vitro mucinase activity and in vivo colonization by both intestinal and extraintestinal *Escherichia coli* strains. *PLoS Pathog*. 10(5) (2014).
- 19) Gallotta M, Gancitano G, Pietrocola G, Mora M, Pezzicoli A, Tuscano G, Chiarot E, Nardi-Dei V, Taddei AR, Rindi S, Speziale P, **Soriani M**, Grandi G, Margarit I, Bensi G. SpyAD, a Moonlighting Protein of Group A *Streptococcus* Contributing to Bacterial Division and Host Cell Adhesion. *Infect Immun*. 82(7):2890-901 (2014).
- 20) De Chiara M, Hood D, Muzzi A, Pickard DJ, Perkins T, Pizza M, Dougan G, Rappuoli R, Moxon ER, **Soriani M**, Donati C. Genome sequencing of disease and carriage isolates of nontypeable *Haemophilus influenzae* identifies discrete population structure. *Proc Natl Acad Sci U S A*. 111(14):5439-44 (2014).
- 21) Kasendra M, Barrile R, Leuzzi R, **Soriani M**. *Clostridium difficile* toxins facilitate bacterial colonization by modulating the fence and gate function of colonic epithelium. *J Infect Dis*. 209(7):1095-104 (2014).
- 22) Leuzzi R, Nesta B, Monaci E, Cartocci E, Serino L, **Soriani M**, Rappuoli R, Pizza M. *Neisseria gonorrhoeae* PIII has a role on NG1873 outer membrane localization and is involved in bacterial adhesion to human cervical and urethral epithelial cells. *BMC Microbiol*. 1471-2180-13-251 (2013).
- 23) Urosev D, Ferrer-Navarro M, Pastorello I, Cartocci E, Costenaro L, Zhulenkova D, Maréchal JD, Leonchiks A, Reverter D, Serino L, **Soriani M**, Daura X. Crystal structure of c5321: a protective antigen present in uropathogenic *Escherichia coli* strains displaying an SLR fold. *BMC Struct Biol*. 1472-6807-13-19 (2013).
- 24) Bager RJ, Persson G, Nesta B, **Soriani M**, Serino L, Jeppsson M, Nielsen TK, Bojesen AM. Outer membrane vesicles reflect environmental cues in *Gallibacterium anatis*. *Vet Microbiol*. 167(3-4):565-72 (2013).
- 25) Pastorello I, Rossi Paccani S, Rosini R, Mattera R, Ferrer Navarro M, Urosev D, Nesta B, Lo Surdo P, Del Vecchio M, Rippa V, Bertoldi I, Gomes Moriel D, Laarman AJ, van Strijp JA, Daura X, Pizza M,

- Serino L, **Soriani M**. EsiB, a novel pathogenic Escherichia coli secretory immunoglobulin A-binding protein impairing neutrophil activation. *mBio*. 23;4(4) (2013).
- 26) Leuzzi R, Spencer J, Buckley A, Brettoni C, Martinelli M, Tulli L, Marchi S, Luzzi E, Irvine J, Candlish D, Veggi D, Pansegrau W, Fiaschi L, Savino S, Swennen E, Cakici O, Oviedo-Orta E, Giraldi M, Baudner B, D'Urzo N, Maione D, **Soriani M**, Rappuoli R, Pizza M, Douce GR, Scarselli M. Protective efficacy induced by recombinant Clostridium difficile toxin fragments. *Infect Immun*. 81(8):2851-60 (2013).
- 27) Di Palo B, Rippa V, Santi I, Brettoni C, Muzzi A, Metruccio MM, Grifantini R, Telford JL, Paccani SR, **Soriani M**. Adaptive response of Group B streptococcus to high glucose conditions: new insights on the CovRS regulation network. *PLoS One*. 8(4) (2013).
- 28) Tulli L, Marchi S, Petracca R, Shaw HA, Fairweather NF, Scarselli M, **Soriani M**, Leuzzi R. CbpA: a novel surface exposed adhesin of Clostridium difficile targeting human collagen. *Cell Microbiol*. 15(10):1674-87 (2013).
- 29) Bager RJ, Nesta B, Pors SE, **Soriani M**, Serino L, Boyce JD, Adler B, Bojesen AM. The fimbrial protein FlfA from Gallibacterium anatis is a virulence factor and vaccine candidate. *Infect Immun*. 81(6):1964-73 (2013).
- 30) Pezzicoli A, Ruggiero P, Amerighi F, Telford JL, **Soriani M**. Exogenous sialic acid transport contributes to group B streptococcus infection of mucosal surfaces. *J Infect Dis*. 206(6):924-31. (2012). JIF= 7.759
- 31) Nesta B, Spraggon G, Alteri C, Moriel DG, Rosini R, Veggi D, Smith S, Bertoldi I, Pastorello I, Ferlenghi I, Fontana MR, Frankel G, Mobley HL, Rappuoli R, Pizza M, Serino L, **Soriani M**. FdeC, a novel broadly conserved Escherichia coli adhesin eliciting protection against urinary tract infections. *mBio*. 3(2) (2012).
- 32) Galeotti, C. L., E. Bove, A. Pezzicoli, R. Nogarotto, N. Norais, S. Pileri, B. Lelli, F. Falugi, S. Balloni, V. Tedde, E. Chiarot, M. Bombaci, **M. Soriani**, L. Bracci, G. Grandi, and R. Grifantini. Surface Interactome in Streptococcus pyogenes. *Mol Cell Proteomics* (2012).
- 33) Koehler, C., L. Carlier, D. Veggi, E. Balducci, F. Di Marcello, M. Ferrer-Navarro, M. Pizza, X. Daura, **M. Soriani**, R. Boelens, and A. M. Bonvin. Structural and biochemical characterization of NarE, an iron-containing ADP-ribosyltransferase from Neisseria meningitidis. *J Biol Chem* 286:14842-14851 (2011).
- 34) Carlier, L, C. Koehler, D. Veggi, M. Pizza, **M. Soriani**, et al. NMR resonance assignments of NarE, a putative ADP-ribosylating toxin from Neisseria meningitidis. *Biomol NMR Assign* 5(1): 35-8 (2011).
- 35) A. Neumoin, A. Leonchiks, P. Petit, L. Vuillard, M. Pizza, **M. Soriani**, R. Boelens, and A. M. J. J. Bonvin. <sup>1</sup>H, <sup>13</sup>C and <sup>15</sup>N assignment of the GNA1946 outer membrane lipoprotein from Neisseria meningitidis. *Biomol NMR Assign*, 5(2): 135–138 (2011).
- 36) **Soriani, M.**, P. Petit, R. Grifantini, R. Petracca, G. Gancitano, E. Frigimelica, F. Nardelli, C. Garcia, S. Spinelli, G. Scarabelli, S. Fiorucci, R. Affentranger, M. Ferrer-Navarro, M. Zacharias, G. Colombo, L. Vuillard, X. Daura and G. Grandi. Exploiting antigenic diversity for vaccine design: the Chlamydia ArtJ paradigm. *J Biol Chem*, 285: 30126-30138 (2010).
- 37) **Soriani, M.** and J.L. Telford. Relevance of pili in pathogenic streptococci pathogenesis and vaccine development. *Future Microbiology*, 5:735-47 (2010).
- 38) Gourlay, L.J., Colombo, G., **Soriani, M.**, Grandi, G., Daura, X. and Bolognesi, M. Why is a protective antigen protective? *Hum Vaccines*, 5:1-4 (2009).
- 39) Santi, I., Grifantini, R., Jiang, S., Brettoni, C., Wessels, M.R., Grandi, G. and **Soriani, M.** CsrRS regulates group B *Streptococcus* virulence gene expression in response to environmental pH. *Journal of Bacteriology*, 191:5387-97 (2009).
- 40) Gourlay, L. J., I. Santi, A. Pezzicoli, G. Grandi, **M. Soriani**, and M. Bolognesi. Group B streptococcus pullulanase crystal structures in the context of a novel strategy for vaccine development. *Journal of Bacteriology*, 191:3544-52 (2009).
- 41) Santi, I., Maione, D., Galeotti C.L., Grandi, G., Telford, J.L., and **Soriani, M.** BibA induces opsonizing antibodies conferring *in vivo* protection against Group B *Streptococcus*. *Journal of Infectious Disease*, 200:564-70 (2009).
- 42) Santi, I., Pezzicoli, A., Bosello, M., Berti, F., Mariani, M., Telford, J. L., Grandi, G. and **Soriani, M.** Functional characterization of a newly identified group B streptococcus pullulanase eliciting antibodies able to prevent alpha-glucans degradation. *PLoS ONE*, 3 (11): e3787 (2008).

- 43) A. Pezzicoli, I. Santi, Peter Lauer, Roberto Rosini, Daniela Rinaudo, G. Grandi, J.L. Telford and **M. Soriani**. Pilus backbone contributes to Group B *Streptococcus* paracellular translocation through epithelial cells. *Journal of Infectious Disease*, 198 (6), 190-98 (2008).
- 44) I. Santi, M. Scarselli, M. Mariani, A. Pezzicoli, V. Masignani, A. Taddei, G. Grandi, J.L. Telford and **M. Soriani**. BibA: a novel immunogenic bacterial adhesin contributing to Group B Streptococcus survival in human blood. *Molecular Microbiology*, 63 (3):754-67 (2007).
- 45) R. Rosini, C. D. Rinaudo, **M. Soriani**, P. Lauer, M. Mora, D. Maione, A. Taddei, I. Santi, C. Ghezzi, C. Brettoni, S. Buccato, I. Margarit, G. Grandi and J.L. Telford. Identification of novel genomic islands coding for antigenic pilus-like structures in *Streptococcus agalactiae*. *Molecular Microbiology*, 61 (1):126-141 (2006).
- 46) **M. Soriani**, I. Santi, A. Taddei, R. Rappuoli, G. Grandi and J.L. Telford. Group B streptococcus crosses human epithelial cells by a paracellular route. *Journal of Infectious Disease*, 193:241-250 (2006).
- 47) P. Lauer, C.D. Rinaudo, **M. Soriani**, I. Margarit, D. Maione, R. Rosini, A. Taddei, M. Mora, R. Rappuoli, G. Grandi and J. L. Telford. Genome analysis reveals pili in Group B Streptococcus. *Science*, 309:105 (2005).
- 48) **M. Soriani**, L. Bailey and T.R. Hirst. Contribution of the ADP-ribosylating and receptor binding properties of cholera-like enterotoxins in modulating cytokine secretion by human intestinal epithelial cells. *Microbiology*, 148(Pt 3): 667-676 (2002).
- 49) T.R Hirst, S. Fraser, **M. Soriani**, A.T. Aman, L. de Haan, A. Hearn & E. Merritt. New insights into the structure-function relationships and therapeutic applications of cholera-like enterotoxins. *International Journal of Medical Microbiology* 291(6-7): 531-535 (2002).
- 50) R.J. Salmond, R.S. Pitman, E. Jimi, **M. Soriani**, T.R. Hirst and N.A. Williams. CD8+ T-cell apoptosis induced by *Escherichia coli* heat-labile enterotoxin B-subunit occurs via a novel pathway involving the NF- $\kappa$ B-dependent activation of caspase-8 and caspase-3. *European Journal of Immunology* 32(6): 1737-1747 (2002).
- 51) R.S. Heyderman, **M. Soriani**, and T.R. Hirst. T-cell activation: the missing link in the pathogenesis of post-diarrhoeal haemolytic uraemic syndrome. *Trends in Microbiology* 9(5): 262-266 (2001).
- 52) **M. Soriani**, N.A. Williams and T.R. Hirst. *E. coli* enterotoxin B subunit triggers apoptosis of CD8+ T-cells by activating the transcription factor *c-myc*. *Infection & Immunity* 69(8): 4923-4930 (2001).
- 53) **M. Soriani**, V. Hejmadi and R.M. Tyrrell. Modulation of *c-jun* and *c-fos* transcription by UVB and UVA radiations in human dermal fibroblasts and KB cells. *Photochemistry and Photobiology* 71(5): 551-558 (2000).
- 54) B. Bose, **M. Soriani** and R.M. Tyrrell. Activation of expression of the *c-fos* oncogene by UVA irradiation in cultured human skin fibroblasts. *Photochemistry and Photobiology*, 69(4): 489-93 (1999).
- 55) **M. Soriani**, P. Luscher and R.M. Tyrrell. Direct and indirect modulation of ornithine decarboxylase and cyclooxygenase by UVB radiation in human skin cells. *Carcinogenesis*, 20(4):727-32 (1999).
- 56) **M. Soriani**, C. Rice-Evans and R.M. Tyrrell. Modulation of the UVA activation of heme oxygenase, collagenase and cyclooxygenase gene expression by epigallocatechin in human skin cells. *FEBS Letters*, 439(3): 253-57 (1998).
- 57) **M. Soriani** and A.U. Freiburghaus. GP-2 is the major ATP-binding protein of pig pancreatic zymogen granule membranes. *Pancreas*, 14 (1): 102-103 (1997).
- 58) **M. Soriani** and A.U. Freiburghaus. Identification of a GPI-anchored glycoprotein with nucleoside phosphatase activity on pancreatic zymogen granule membranes. *International Journal of Biochemistry and Cell Biology*, 28 (6): 683-695 (1996).
- 59) **M. Soriani**, M.C. Spaans, M. Tobler and A.U. Freiburghaus. Nucleoside phosphatase activities on pig pancreas zymogen granule membranes analysed by non-denaturing polyacrylamide gel electrophoresis. *International Journal of Biochemistry and Cell Biology*, 27 (10): 1043-1054 (1995). JIF= 5.652
- 60) **M. Soriani**, D. Pietraforte and M. Minetti. Antioxidant potential of anaerobic human plasma: role of serum albumin and thiols as scavengers of carbon radicals. *Archives of Biochemistry and Biophysics*, 312 (1): 180-88 (1994).
- 61) **M. Soriani**, S. Mazzuca, V. Quaresima and M. Minetti. Desferrioxamine oxidation to nitroxide radical and enhancement of hypochlorous acid production by activated human neutrophils. *Free Radical Biology & Medicine*, 14: 589-599 (1993).
- 62) Minetti, T. Forte, **M. Soriani**, V. Quaresima, A. Menditto and M. Ferrari. Iron-induced ascorbate oxidation in plasma as monitored by ascorbate free radical formation. *Biochemical Journal*, 282 (part 2): 459-465 (1992).