

EUROPEAN
CURRICULUM VITAE
FORMAT



PERSONAL INFORMATION

Name **MARIACONCETTA SICURELLA**
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Nationality Italian
Date of birth 29/09/1983

WORK EXPERIENCE

- Year March 2016
- Name of employer University of Ferrara, Faculty of Chemistry and Pharmaceutical Technology
- Occupation or position held Laboratory Assistance for Microbiology, art. 26 del DPR 382/80

- Year March 2015
- Name of employer University of Ferrara, Faculty of Chemistry and Pharmaceutical Technology
- Occupation or position held Laboratory Assistance for Microbiology, art. 26 del DPR 382/80

- Year January 2013 – January 2015
- Name of employer University of Ferrara,
- Type of business or sector Virology and Microbiology
- Occupation or position held Research Fellow
- Main activities and responsibilities Responsible for the development of vectors based on herpes simplex virus type 1 as a model vaccine against human pathogens: TB, HSV, HIV.

- Year January 2012 – November 2012
- Name of employer University of Ferrara
- Type of business or sector Research and Marketing
- Occupation or position held Research Assistant
- Main activities and responsibilities Market research: detect, discover, allocate and interpret data
Collaborate identification of marketing strategies to promote the visibility of the products
Manage correspondence of marketing to potential customers and suppliers

- Year January 2009 – December 2011
- Name of employer University of Padova
- Type of business or sector Biomedicine (Virology, Microbiology)
- Occupation or position held PhD Student
- Main activities and responsibilities Responsible for the study on the role of the tat protein of HIV virus in the generation of new herpes Simplex vectors for the development of vaccines

- Year (September 2007 – December 2008)
- Name of employer University of Ferrara
- Type of business or sector Biochemistry and Molecular Biology
- Main activities and responsibilities Studies on diseases of the blood

EDUCATION AND TRAINING

- Year of Award December 2008
- Qualification Practice the profession of biologist
- Institution of Education University of Ferrara

- Year of Award April 2012
- Qualification PhD
- Institution of Education University of Padova
- Dissertation Title Evaluation of the immunogenicity and efficacy of herpes vectors for the development of a vaccine against HSV infection
- Evaluation Excellent

- Year of Award October 2007
- Qualification Master's Degree
- Institution of Education University of Ferrara
- Dissertation Title Nuovi modulatori allosterici per il recettore A₁ dell'adenosina: uno studio farmacologico e funzionale
- Evaluation 110 cum laude

- Year of Award October 2005
- Qualification Bachelor's Degree
- Institution of Education University of Ferrara
- Dissertation Title Nuovi ligandi antagonisti per il recettore A_{2B} dell'adenosina
- Evaluation 104/110

- Year of Award 2001
- Institution of Education Liceo socio-psico-pedagogico "F.Crispi" Ribera
- Evaluation 100/100

LANGUAGES

MOTHER TONGUE

ITALIAN

OTHER LANGUAGES

ENGLISH

- Reading skills
- Writing skills
- Verbal skills

B2

B2

B2

FRENCH

- Reading skills
- Writing skills
- Verbal skills

Elementary

Elementary

Elementary

IT SKILLS

Microsoft Office (such as: Word, Excel, Power Point, Outlook, Photoshop, Apple programs, Internet, Graphpad program).

COMPETENCES

General Microbiology:

Medium for bacteria and cells

Culture of bacteria and cells in liquid and solid medium

Determination of bacteria (through quantitative and spectrophotometric methods)

MTT Assay

Microscopy:

Confocal and Fluorescence

Recombinant technologies:

Extraction and purification of plasmid DNA from bacterial

Cloning Techniques

Preparation of a competent bacteria and transformation analysis

Agarose gel electrophoresis

Transfer of DNA in the filter (Southern Blotting)

Preparation of probes DNA

Analysis of protein:

Transfection of cells with CaCl_2 and Lipofectamine

Cell lysis

Determination of proteins concentration (Bradford method or BCA)

Electrophoresis of proteins on polyacrylamide gels with Sodiiododecilsfosfato (SDS-PAGE)

Transfer of proteins in the filter (Western-blotting)

Hybridization with mono-and polyclonal antibodies

Revelation Chemoluminescenza

Construction of fusion proteins (GST)
Proteasome purification and Enzymatic assays

Viral expression systems:

Construction of the Herpes vectors and their application *in vitro* and *in vivo*,
Amplification and titration recombinant viruses
Crystal violet coloration
Infection of human and murine cells

Immunological assays:

Elispot (human and mouse) assay
ELISA assay,
Blood's purification elements
Flow cytometry (FACS)
Immunofluorescence

Model *in Vivo*:

BALB/C and C57BL/6
Immunization (intradermic, subcutaneous, intravaginally)
Eye bleedig and Necropsy
Mucosal samples

Pharmacological Test:

Saturation and competition Binding Assay
Determination of levels of cyclic AMP

Laboratory equipment: use and / or maintenance of the equipment necessary for the implementation of the above listed laboratory techniques

PUBLICATIONS

Systemic immunodominant CD8 responses with an effector-like phenotype are induced by intravaginal immunization with attenuated HSV vectors expressing HIV Tat and mediate protection against HSV infection.

Nicoli F, Gallerani E, Skarlis C, **Sicurella M**, Cafaro A, Ensoli B, Caputo A, Marconi PC, Gavioli R. Vaccine. 2016 Apr 27.

Effects of different routes of administration on the immunogenicity of the Tat protein and a Tat-derived peptide.

Finessi V, Nicoli F, Gallerani E, Sforza F, **Sicurella M**, Cafaro A, Caputo A, Ensoli B, Gavioli R. Hum Vaccin Immunother. 2015.

An attenuated herpes simplex virus type 1 (HSV1) encoding the HIV-1 Tat protein protects mice from a deadly mucosal HSV1 challenge.

Sicurella M, Nicoli F, Gallerani E, Volpi I, Berto E, Finessi V, Destro F, Manservigi R, Cafaro A, Ensoli B, Caputo A, Gavioli R, Marconi PC. PLoS One. 2014 Jul 17.

The HIV-1 Tat Protein Induces the Activation of CD8(+) T Cells and Affects In Vivo the Magnitude and Kinetics of Antiviral Responses.

Nicoli F, Finessi V, **Sicurella M**, Rizzotto L, Gallerani E, Destro F, Cafaro A, Marconi P, Caputo A, Ensoli B, Gavioli R.

PLoS One. 2013 Nov 4

Proteasome inhibitors induce the presentation of an Epstein-Barr virus nuclear antigen 1-derived cytotoxic T lymphocyte epitope in Burkitt's lymphoma cells.

Destro F, Sforza F, **Sicurella M**, Marescotti D, Gallerani E, Baldisserotto A, Marastoni M, Gavioli R.

Immunology. 2011 May

Studio Prospettico della ferritinemia sui donatori periodici (RE07)

A.Ferri, R. Calza, **M. Sicurella**, F. Gavioli.

AVIS 2008

PRESENTATIONS

Congresso SIV: 12th National Congress of the Italian Society for Virology

Poster: Herpes simplex vaccine vector co-expressing fused Mycobacterium Tuberculosis immunogens and Tat adjuvant enhances cellular and humoral responses in Balb/c mice.

Orvieto 22-24 settembre 2014

Congresso SIM: 41th Congresso nazionale della Società Italiana di Microbiologia

Oral communication: Viral vector expressing Tat as immunomodulatory molecule represent a new vaccine strategy against pathogens

Riccione 13-16 ottobre 2013

Istituto Superiore di Sanità: Retreat del Centro Nazionale AIDS

Oral communication: Effetto immunomodulatorio della proteina Tat di HIV sull'infezione da Herpes Simplex-1.

Roma, 16-18 Febbraio 2011

Congresso SIV: "Nuovi itinerari di virologia clinica: Bagagli di esperienze a confronto"

Oral communication: Immunogenicity of HSV-1 vectors expressing the HIV-1 Tat protein

Gallipoli 16-18 Settembre 2010

LECTURES AND CONFERENCES

Congresso SIV: 12th National Congress of the Italian Society for Virology

Orvieto 22-24 settembre 2014

Congresso SIM: 41° Congresso nazionale della Società Italiana di Microbiologia

Riccione 13-16 ottobre 2013

Epixchange: Gene and cell therapy for brain disease

Ferrara 3-4 ottobre 2013

Spinner 2013 Regione Emilia Romagna Bussines Plan,

Bologna, Maggio 2012

Spinner 2013 Regione Emilia Romagna Marketing Strategico

Bologna, Maggio 2012

Istituto Superiore di Sanità, Dott.ssa Barbara Ensoli Dr. Marc H.V. Van Regenmortel:

"Why it is not possible to rationally design an HSV-1 vaccine using crystal structures of viral antigens complexed with neutralizing monoclonal antibodies"

Roma, 30 Maggio 2011

Istituto Superiore di Sanità

Dott.ssa Barbara Ensoli, **Retreat del Centro Nazionale AIDS**

Roma, 16-18 Febbraio 2011

23^a Riunione Nazionale "A. Castellani" dei dottorandi di ricerca in discipline biochimiche
Università degli Studi di Pavia: Società per lo studio della biochimica delle cellule del sangue
Brallo di Pregola (PV) 8-11 Giugno 2010

Università degli Studi di Ferrara "Obiettivi del millennio e diritti umani. I vaccini: ricerca, sviluppo, accesso".

Ferrara, 13 Ottobre 2010

Congresso SIV "Nuovi itinerari di virologia clinica: Bagagli di esperienze a confronto"

Gallipoli 16-18 Settembre 2010

Università degli Studi di Urbino

Prof. Mauro Magnani, **Nano e Biotecnologie per la diagnostica e la terapia**

Urbino 10-11 settembre 2009

Università degli Studi di Padova "Summer School" Scuole/Corsi di Dottorato di ricerca dell'area medica Istituto Veneto di Medicina Molecolare (VIMM)

Padova 14-18- Settembre 2009

Azienda Ospedaliero-Universitaria "S. Anna" Ferrara

Prof. Alastair Compston, **Meeting sulla ricerca Sanitaria della sclerosi multipla**

Ferrara 11 Maggio 2009

Congresso SIB 54th National Meeting of the Italian Society of Biochemistry and Molecular Biology

Catania 23-27 Settembre 2009

"Autorizzo il trattamento dei miei dati personali, ai sensi del D.lgs. 196 del 30 giugno 2003".

"Il sottoscritto acconsente alla pubblicazione del presente curriculum vitae sul sito dell'Università di Ferrara"

Marisa B. Sestini