

# Giulia Frezza, Phd

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## PERSONAL DETAILS

Via dell'Esquilino, 38, 00185 Rome, Italy  
Sex: F Date and place of birth: 07-11-1980 Genova, Italy  
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## CURRENT RESEARCH PROJECTS & TEACHING

### 2012-present

#### Postdoctoral research fellowship in History of Medicine.

Department of Biotechnological and Medical-Surgical Sciences of Sapienza University of Rome.

**Research field:** history of medicine, history and philosophy of life sciences, philosophy of science.

My research focuses on theoretical issues in the history of medicine, with a specific interest in the history of medical genetics. Cultural and epistemological shifts as well as an interdisciplinary perspective are essential features of my work since my PhD.

I study how the concept of causality in modern medicine changed over time – XIX-XXI century. My focus is on some case studies in the history of genetics and of epidemiology, particularly emphasizing the changes in the study of the interaction between organism and environment. Currently, I am also working on a project about toxicology and the rise of the Italian occupational and environmental medicine, with a specific attention to the innovative works on carcinogenesis of vinyl chloride made by Cesare Maltoni since the 1970s, and to the network of international scientists that founded the international academy "Collegium Ramazzini" in 1982.

**Lecturer:** Course of history of medicine, Department of Biotechnological and Medical-Surgical Sciences, Sapienza University of Rome.

### 2011-present

**Teaching assistant:** Course of philosophy and life sciences, Department of Philosophy, Sapienza University of Rome, Prof. Elena Gagliasso.

### 2008-2014

**Annual seminars:** "Epistemology and history of life sciences", Department of Natural Sciences, University of Rome TRE, Prof. Pierluigi Luisi.

#### Fellowships & grants:

### 2010-2011

Six months of research fellowship grant of Sapienza University of Rome at the Dépt. d'Informatique, ENS-Paris, tutor Dr. Giuseppe Longo.

### 2008-2009

Erasmus: Département de Philosophie, Université Paris I, Pantheon-Sorbonne, tutor Dr. Jean-Baptiste Joinet.

### 2006-2007

Research fellowship grant of Sapienza University of Rome at the Dépt. de Philosophie, ENS-Paris, tutor Prof. Claude Debru.

#### Workshop organisation:

### 2015

International workshop "Medical terminology and epistemology for a dictionary of genetics and its degenerations from Hippocrates to ICD-10", May 4-6, University of Palermo.

### 2014

International workshop "Metaphor in natural sciences", 10th RaAm Conference-Metaphor in Communication, Science and Education, June 20-23, University of Cagliari.

### 2010

International workshop "Les fondements à l'ère post-fondationnelle-LIGC-2010", November 18-20, ENS-Paris.

### 2008

International workshop of epistemology and cognitive sciences "Metaphors of living beings", Department of Philosophy, Sapienza University of Rome.

**Summer Schools:** (2010) International Interdisciplinary School of Life Sciences of Berder, CNRS-ENS, France. (2015) 8th European Spring School on History of Science and Popularization, "LIVING IN A TOXIC WORLD (1800-2000)", Maó, Spain.

#### Science communication events:

### 2015

1st Festival della Scienza Medica, La Lunga Vita, Bologna May 7-10. Direction of the formats: "Visita in corsia", "Strilloni".

### 2014

European Researchers' Night, Museum of History of Medicine, Sapienza University of Rome. Science fiction theatre performance "Com'è fatto il mio corpo?".

Participation within the education and science communication project in the schools of Rome, "Stem cells from the students' eyes". Association Adamas Scienza "Project Unistem", Sapienza University of Rome.

### 2013

European Researchers' Night, Museum of History of Medicine, Sapienza University of Rome: science fiction shadow theatre "La vera storia delle scoperte di Galileo" and the game of the European Community *PlayDecide* about pediatric vaccination.

## EDUCATION

### 2011

#### PhD in Philosophy/Epistemology and History of Sciences

University of RomaTRE and Université Denis-Diderot-Paris7. Supervisors: Michele Abrusci, Claude Debru, Giuseppe Longo.

Title: "The concept of interaction. Crossovers among biology, logic and philosophy".

Grade:  
Eccellente/excellent  
avec félicitations de la  
jury

### 2004-2007

MA in philosophy and history of science, Dep. of Philosophy, Sapienza University of Rome (110/110 *cum laude*)

### 2002

BA in philosophy, department of philosophy, Sapienza University of Rome (110/110 *cum laude*).

### 1999

Classic High School, Ennio Quirino Visconti of Rome.

## ARTICLES

- FREZZA G., GAGLIASSO E., "Science in metaphors", *"Metaphor in Human and Natural Sciences"*, Ervas F., Gola E. (a cura di) (Forthcoming).
- FREZZA G., "The broken cause. The rise and fall of the cause in aetiological models: influences, gene, environment". International workshop "MEG-Medical terminology and epistemology for a dictionary of genetics and its degenerations from Hippocrates to ICD-10" (Forthcoming).
- 2015 FREZZA G., "La ricerca dall'invisibile, dall'embriologia alla genetica". In Molino V., Cavazzini A. *Epistemologia e ricerca*, Mimesis, Milano (Forthcoming).
- FREZZA G., CAPOCCI M., "T.H. Morgan and the invisible genes, using the artificial to discover the natural", *History and Philosophy of the Life Sciences*, Special Issue, "The 'Artificial' and the 'Natural' in the Life Sciences, c. 1850-1950" (In review).
- FREZZA G., "Interaction: a case of 'epistemological exaptation' in life sciences", *Post*, n. 5, Mimesis, Milano (In Press).
- 2014 COSTA R., FREZZA G., "Crossovers between Epigenesis and Epigenetics. A Multicenter Approach to the History Of Epigenetics (1901-1975)", *Medicina nei Secoli*, 27, 1: 931-968.
- FREZZA G., GAGLIASSO E., "Fare metafore e fare scienza", *Aisthesis, Formare per metafore. Arte, scienza, natura*, Tedesco S., Messori R. (a cura di), vol. 7, n°2: 25-42.
- 2012 FREZZA G., "L'interdisciplinarietà: la seconda natura degli scienziati, la prima natura del medico", *Medicina nei Secoli*, vol. 26, n°1.
- FREZZA G., "Lo specchio della trasparenza. La metafora come strumento concettuale tra scienza e cultura e il caso dei neuroni specchio", *Rivista Sperimentale di Freniatria, Il senso delle neuroscienze per la salute mentale*, 1: 129-138.
- 2010 FREZZA G., LONGO G., "Variations on the theme of invariants: conceptual and mathematical dualities in physics vs biology", *Human Evolution*, 25, n. 3-4:167-172.
- LONGO G., FREZZA G., "Crossing-over sul vivente", in GAGLIASSO E., FREZZA G. (2010) (a cura di): 197-207.
- FREZZA G., "La metafora dello specchio e i *mirror neurons*", in GAGLIASSO E., FREZZA G. (2010) (a cura di): 281-286.
- 2009 FREZZA G., "La ricerca di un modello neurofisiologico per il rispecchiamento con l'altro: la polarità del *Mirror Neuron System* e il caso dell'autismo", *Teorie & Modelli*, 1: 103-118.
- FREZZA G., "Incompletezza, indeterminazione, aleatorio. La forza del 'no' nel pensiero scientifico moderno", *Riflessioni Sistemiche*, 1:75-82.

## BOOKS

- 2013 FREZZA G., *The concept of interaction: crossovers among biology, logic and philosophy*, ANRT, Pont de Bois, Villeneuve d'Ascq.
- 2010 GAGLIASSO E., FREZZA G. (a cura di), *Metafore del Vivente. Linguaggi e sperimentazione in filosofia, biologia e scienze cognitive*, Franco Angeli, Milano.

## TRANSLATIONS

- 2014 CAPRA F., LUISI P., *The systems view of life*, Cambridge University Press, Italian translation. *Vita e Natura. Una visione sistemica*, Aboca, Sansepolcro, p. 608.
- BADIOU A., *Pornographie du temps present*, Fayard, Paris, Italian translation. *Pornografia del tempo presente*, Sossella Editore, Roma.

## CONFERENCES &amp; PAPERS

- 2015 FREZZA G., CAPOCCI M., "Science & medicine in the factory. Occupational health & the critique of scientific knowledge in 1970s Italy", Workshop "1970s: turn of an era in the history of science?", September 14-15, Aarhus University, Denmark.
- FREZZA G., "Epigenesis & epigenetics: from processes to entities (1910s-1960s)", seminar équipe Complexité et information morphologiques-CIM, CNRS-ENS-Paris.
- FREZZA G., "A transition in medical metaphors. From 'heredity' to 'epigenetic landscape'", II NeuroHumanities Dialogue "Metaphors as source of creative thought", 4-6 June, University of Catania.
- FREZZA G., "The broken cause. The rise and fall of the cause in aetiological models: influences, gene, environment". International workshop "MEG-Medical terminology and epistemology for a dictionary of genetics and its degenerations from Hippocrates to ICD-10", May 4-6, University of Palermo.
- 2014 FREZZA G., "Thomas Hunt Morgan's theory building & the invisible gene", Seminar Evolution & Cognition, Department of Philosophy, Sapienza University of Rome.
- FREZZA G., "The cause of hereditary disease: from invisible mechanisms to material gene", II Workshop FIRB-2010, From individual constitution to genetic therapy. Causes, diagnosis & therapy of hereditary disease from Hippocrates to ICD-10, Palermo University.
- FREZZA G., CAPOCCI M., "T.H. Morgan and the invisible genes, using the artificial to discover the natural", "The 'Artificial' and the 'Natural' in the Life Sciences, c. 1850-1950", June 26-27, University of Exeter, U.K.
- 2013 FREZZA G., "Visibile and invisibile. T.H. Morgan & the relation organism-gene" RESviva meeting -young, Department of Philosophy, Sapienza University of Rome.
- FREZZA G., "Epigenesis/epigenetics: from models to molecules", I Workshop FIRB-2010, The Lexicon of Genetics from Hippocrates to ICD-10, Palermo University.
- 2010 FREZZA G., "Interaction: a case of 'epistemological exaptation'", PhD doctors in Logics of Rome TRE University Workshop, Department of Mathematics, RomaTRE University.
- 2008 FREZZA G., "Le concept d'interaction: évolutions, métamorphoses, *exaptation*", séminaire équipe Complexité et information morphologiques-CIM, CNRS-ENS-Paris.
- FREZZA G., "The metaphor of the mirror and mirror neurons", International workshop of epistemology and cognitive sciences-Metaphors of living beings, November 27-29, Sapienza University of Rome.