

UNIVERSITÀ DEGLI STUDI DI MILANO

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settore scientifico-disciplinare MED/04 - PATOLOGIA GENERALE

presso il Dipartimento di Scienze Farmacologiche e Biomolecolari,

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Natascia Ventura CURRICULUM VITAE

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	VENTURA
NOME	NATASCIA
DATA DI NASCITA	14/01/1973

INSERIRE IL PROPRIO CURRICULUM (non eccedente le 30 pagine)

Academic Achievements

1999 Medical Doctor Degree (110/110 cum Laude), University of Tor Vergata, Rome, Italy
2000 Medical Doctor Habilitation, Tor Vergata Hospital, Rome, Italy
2004 PhD degree, University of Tor Vergata, Rome, Italy
2008 Centro Nazionale delle Ricerche, Idoneita' (2nd and 4th positions)
2018 Abilitazione Scientifica Nazionale: 05/F1 (BIO13), Biologica Applicata
2018 Abilitazione Scientifica Nazionale 06/A2 (MED04), Patologia Generale e Clinica
2020 German Habilitation: Heinrich Heine University of Düsseldorf, Molecular Medicine (*submitted*)

Positions

2003 Professional Research Assistant (6 months), Laboratory of Prof. Johnson, University of Colorado at Boulder, CO, USA
2004-07 Research Associate (post-doc fellow), University of Colorado at Boulder, CO, USA
2008 Offered position as Assistant Professor in Neuroscience at The Commonwealth Medical College, School of Medicine of Scranton, Pennsylvania, US
2007-11 Assegnista di Ricerca (4 contracts), Medical Faculty, University of Rome Tor Vergata, Italy
2012-15 Visiting Scientist, Medical Faculty, University of Rome Tor Vergata, Italy
2011-22 Group Leader, Medical Faculty, Heinrich Heine University of Düsseldorf and the Leibniz Research Institute for Environmental Medicine

Fellowships

1997-99 Part-time research assistant scholarship, University of Tor Vergata, Rome, Italy
2000-04 PhD fellowship, University of Tor Vergata, Rome, Italy

2000	Award for Young Investigator, University of Rome Tor Vergata
2004	Short Term Fellowship, European Molecular Biology Organization (EMBO)
2004-07	Post-Doctoral Fellowship, Italian Foundation for Cancer Research (FIRC)
2006	Research Fellowship Award, National Ataxia Foundation (NAF): Amount for 1 year: \$ 45.000
2006-07	Faculty Research Team award University of Colorado at Boulder (Co-PI)– Undergraduate Research Opportunity Program (UROP)
2007-11	Post-doctoral research fellowships (Assegni di ricerca), Medical Faculty, University of Tor Vergata, Rome, Italy

Grants

- 2012 **Italian Association for Cancer Research** (AIRC, MFAG11509): *“Unravel molecular mechanisms of anti-aging mitochondrial quality control pathways acting as tumor suppressors”*.
Amount for 3 years: € 150.000
- 2014 **Strategic Research Funding** (SFF), Heinrich-Heine-University of Düsseldorf: *“Identification of compounds which ameliorate neuronal defects in C. elegans models of Human Mitochondria-associated Diseases”*.
Amount for 1 year: € 59.495
- 2014 **Research Commission of the Medical Faculty** (Foko), Heinrich-Heine-University of Düsseldorf. Start-up Competitive Research Funding: *“C. elegans as a model organism to identify protective mitochondria stress response pathways able to delay age-associated neuromuscular decline”*.
Amount for 2 years: € 94.800
- 2015 **German Research Foundation** (DFG, VE663/3-1): *“Bimodal adaptation responses to mitochondria stress induced by extrinsic interventions to delay neuromuscular aging and extend healthy lifespan”*.
Amount for 3 years: € 415.850
- 2016 **Federal Ministry of Education and Research** (BMBF), European Joint Program Initiative - A healthy diet for healthy life (JPI-HDHL, Grant no. 01EA1602): *“Nutritional targeting of the mitochondria-tyr-kinase axis to prevent age-associated neuronal decline – MiTyrAge”*.
Project coordinator.
Total amount for the consortia: € 782.600. Amount for my team for 3 years: € 277.752
- 2017 **Research Commission of the Medical Faculty** (Foko), Heinrich-Heine-University of Düsseldorf. Start-up Competitive Research Funding: *“To exploit the anti-aging activity of lowering mitochondrial function as a tumor suppressor strategy”*.
Amount for 1 year: € 80.077
- 2017 **German Research Foundation** (DFG, VE663/6-1): *“Role of mitochondria in neuronal aging induced by environmental nanoparticles”*
Amount for 3 years: € 316.000
- 2018 **German Research Foundation** (DFG, VE663/8-1): *“AhR-mitochondria crosstalk in diet promoted longevity”*
Amount for 3 years: € 356.550
- 2020 **Leibniz Collaborative Excellence** (SAW-2020-IUF-3-CiliaNER; Proj n. K246/2019): *“Defective cilia in the pathogenesis of neurological phenotypes in patients with nucleotide excision repair (NER) syndromes (CiliaNER)”*. Cooperation Partner.
Total amount for the consortia: € 969.138. Amount for my team for 3 years: € 239.945

Submitted

- 2020 **German Research Foundation** (DFG, VE663/3-3): *“Pro-longevity natural compounds as suppressors of mitochondrial complex I-associated disease”*.
Requested amount for 3 years: € 353.440
- 2020 **German Research Foundation** (DFG, 2 partners) – **French Research Agency** (ANR, 2 partners): *“Identification and characterization of orally administrable compounds that improve disorders associated with a high-fat diet by modulating mitochondrial function”*.
Project coordinator. Requested amount for 3 years for my team: € 249.950.

2020 **Horizon 2020.** Call: H2020-SC1-BHC-2018-2020: “*An integrative in vitro-in vivo-in silico approach for the production of new innovative tests to assess behavioral disruption*” – ALBATOX. WP3 Leader.

Teaching and mentoring activities

i) University of Colorado at Boulder, US (2004-07)

Supervision and Training

- 4 Master students
- 4 Student Research Assistant

ii) University of Rome “Tor Vergata”, Italy (2008-11)

Supervision and Training

- 1 Master students
- 2 PhD Student
- 1 Laboratory Technician

Supervised Theses

- 3 Diploma
- 2 PhD

Teaching

- External lecturer and tutor “Interfaculty PhD program in Immunology and Applied Biotechnologies”, Medical Faculty
- External lecturer and tutor “PhD program in Cellular and Molecular Biology”, Mat Nat Faculty

iii) Heinrich Heine University of Duesseldorf, Germany (2012- present)

Supervised Theses

- 4 Bachelor
- 16 Master
- 5 PhD

Teaching

- Since 2013: Master module M4443- M1540, Molecular Biomedicine, Math Nat & Medical Faculty, Environmental-induced signaling processes in mammalian cells and *Caenorhabditis elegans* (20h/semester SS, lectures and practical)
 - Since 2014: Master module GMIV MTOX, Molecular Toxicology, Medical Faculty, Pathology and Pathophysiology (2h/semester SS, Lecture)
 - Since 2016: Elective Curriculum Medical Faculty, Molecular Gerontology (6h/semester SS 7 WS, Lectures)
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Other relevant information

i) Courses and Workshops

- 2001 Certificate of Attendance, Course “CellQuest and PAINT-A-GATE Software”, Becton Dickinson Training Center, Milano, Italy
- 2001 Certificate of Attendance, Course “Graduate Course in Infection and Immunity”, Policlinico Tor Vergata, Roma, Italy

- 2006 NIA Summer Training Course in Experimental Aging Research, Buck Institute for Aging Research, Novato, CA, USA
- 2014 Workshop Participation "European Research Council", Leibniz Institute, Berlin, Germany
- 2017 Certificate of Attendance, Workshop "Good Scientific Practice for Postdocs and Supervisors", Heinrich Heine University, Duesseldorf, Germany
- 2019 Certificate of Attendance, Workshop "Professor Wanted! How to apply for full professorship", Heinrich Heine University, Duesseldorf, Germany
- 2020 Certificate of Training, Online Course "Getting ready for Horizon Europe", Hyperion
- 2020 Certificate of Attendance, Online Coaching "Leadership as a challenge. Leadership styles and professional communication"
- 2020 Certificate of Attendance, Online Coursera Course "Teaching Science at University", University of Zurich

ii) Editor

- 2014 Guest Editor, J Exp Gerontology, Special Issue "Mitochondria and Aging"
- Since 2014 Editorial Board, Peer J
- 2016-20 Review Editor, Frontiers in Aging Neuroscience
- 2019 Guest Editor, Frontiers in Physiology, Special Issue "Advances in metabolic mechanisms of aging and its related diseases"
- Since 2020 Associated Editor, Frontiers in Aging Neuroscience
- Since 2020 Review Editor, Frontiers Molecular Neuroscience
- Since 2020 Editorial Board, Gerontology

iii) Reviewer

Funding Agencies

- 2014 Research Foundation Flanders (FWO), External reviewer
- 2015 Austrian Science Fund (FWF), External reviewer
- 2015 Swiss National Science Foundation (SNF), External reviewer
- 2016 German Research Foundation (DFG), External reviewer
- 2017 Biotechnology and Biological Sciences Research Council (BBSRC), External reviewer
- 2018 Scientific committee member for H2020 Marie-Sklodowska-Curie COFUND Doctoral Training Programme in Functional Advanced materials (DOC-FAM), coordinated by the Spanish National Research Agency (CSIC) through the Institute of Materials Science of Barcelona (ICMAB)
- 2019 Panel committee, Poland National research Center
- 2019 ANR – CE13 Panel Evaluation Committee 2019 "Cellular Biology, Developmental Biology and Evolution"
- 2019 ERC Starting grant, External reviewer
- 2020 ANR – CE13 Panel Evaluation Committee 2020 "Cellular Biology, Developmental Biology and Evolution"
- 2020 ERC Starting grant, External reviewer
- 2020 Forschungskommission, Medical Faculty, Heinrich Heine University, External reviewer

Steering committees

- 2012 External Boarding Advisor, PhD thesis, University of Queensland, Australia
- 2013 External Reviewer, PhD Thesis, Doctorate in Molecular and Cellular Biology, University of "Tor Vergata", Roma, Italy
- 2014 Committee member, PhD candidate, University of Ghent, Belgium
- 2014 Reviewer for Junior Research Professor application, University of Leuven, Belgium
- 2015 External Reviewer, PhD thesis, PhD program: The Aging of Biological Communication Systems, Medical University Innsbruck
- 2017 External Reviewer, PhD thesis, Scuola di Dottorato di Ricerca della Facoltà di Medicina e Chirurgia Curriculum Salute dell' Uomo, Università Politecnica delle Marche, Ancona, Italy

- 2017 Committee member, PhD in Cellular and Molecular Biology, University of “Tor Vergata” Roma, Italy
- 2018 External Reviewer, PhD candidate, University of Tor Vergata, Roma, Italy
- 2018 President PhD committee, Centro Andaluz de Biología del Desarrollo Universidad Pablo de Olavide Seville, Seville, Spain
- 2020 Committee member, PhD candidate, University of Paris

Peer-review Scientific Journals

Aging Cell
 Aging
 Journal of Experimental Gerontology
 Mechanism of Aging and Development
 Journal of Gerontology Biological Sciences
 Journal of the American Aging Association
 Aging Research Review
 Gerontology
 Current Biology
 Antioxidants & Redox Signaling
 Scientific Report
 FASEB Journal
 The American Journal of Pathology
 Journal of Pharmacy and Pharmacology
 PloS One
 Plos Genetics
 Neurotoxicology
 BBA Bioenergetics
 Cellular Physiology and Biochemistry
 Metabolites
 Toxicology and Applied Pharmacology
 Pharmaceuticals

iv) Meetings organization, committee and chair

- 2010 Session Chair, European *C. elegans* Neurobiology Meeting, Crete, Greece
- 2014-18 Management Committee Member, COST Action (BM1408): “*GENiE, A collaborative European network of C. elegans early-stage researchers and young principal investigators*”
- 2011 Organizer, MiTyrAge kickoff meeting, Duesseldorf, Germany
- 2017 Session Chair, Proteostasis Genie meeting, Split, Croatia
- 2019 Session Chair, German Aging Society (DGfA) annual conference, Ulm, Germany
- 2020 Program Committee *C. elegans* Community, The Allied Genetics Conference (TAGC2020), Washington DC, USA

Presentations List

i) Poster Presentations

- 1) Fourth European Workshop on Cell Death, Istanbul, Turkey (2004): *An extramitochondrial role for frataxin in apoptosis suppression.*
- 2) Keystone Symposia on Cell Senescence and Aging, Keystone, USA (2005): *Crosstalk between aging and apoptosis: a role for Frataxin.*
- 3) 15th International *C. elegans* meeting, Los Angeles, USA (2005): *Reduced expression of Frataxin extends the life span of Caenorhabditis elegans.*
- 4) Molecular Genetics of Aging, Cold Spring Harbor Laboratory Meeting and Courses (2006): *p53 and*

AMPk differentially control development and lifespan of the long-lived Mitochondrial mutants.

- 5) Keystone Symposia on Metabolic Pathways of Longevity, Copper Mountain, USA (2008): *p53 rheostatically controls c. elegans mitochondrial mutants longevity depending on the level of mitochondrial stress.*
- 6) Telethon Convention, Riva del Garda, Italy (2009): *Defining the role of the Friedreich's Ataxia protein (frataxin) in cell survival*
- 7) Mitochondrial Medicine UMDF Symposium, Washington, USA (2009): *Searching for early biomarkers exploitable to prevent or delay human mitochondrial-associated diseases onset: C. elegans models as a screening tool.*
- 8) 18th International C. elegans meeting, Los Angeles, USA (2011): *Electron transport chain disruption extends lifespan and reduces fat accumulation through p53-dependent induction of autophagy.*
- 9) Annual meeting of the German Association for Aging Research (DGfA), Frankfurt am Main, Germany (2012): *Mitochondria respiratory chain dysfunction extends lifespan in Caenorhabditis elegans via autophagy regulated by p53 and HIF-1*
- 10) 20th European Conference on Apoptosis "From death to eternity", European Cell Death Organization (ECDO), Rome, Italy: *Mitochondria respiratory chain dysfunction controls Caenorhabditis elegans aging via p53 and Hif-1 induction of autophagy*
- 11) European C. elegans meeting, Berlin, Germany (2016): *An automated phenotype-based microscopy screen to identify pro-longevity interventions acting through mitochondria in C. elegans.*
- 12) Modulation of Ageing / Antiageing: from Molecular Biology to Clinical Perspectives, Halle, Germany (2017): *Mitochondria preconditioning to promote healthy aging in C. elegans.*

ii) Oral Presentations

- 1) Graduate course in infection and immunology, Rome, Italy (2002): *Protective role of Frataxin against different apoptotic stimuli* (31ECM).
- 2) 12th Euroconference on Apoptosis, Chania, Greece (2004): *Frataxin reveals a novel antiapoptotic function beyond its mitochondrial localization.*
- 3) European Worm Meeting, Crete, Greece (2006): *Long Lived C.elegans "Mit" Mutants as a Model for Human Mitochondrial Diseases: Friedreich Ataxia*
- 4) 16th International C. elegans Meeting, University of California, Los Angeles, USA (2007): *p53/cep-1 specifies C. elegans Mitochondrial Mutant Longevity: Implications for the Pathogenesis of Human Mitochondrial Associated Diseases.*
- 5) Keystone Symposia on Metabolic Pathways of Longevity, Copper Mountain, USA (2008): *p53 rheostatically controls c. elegans mitochondrial mutants longevity depending on the level of mitochondrial stress.*
- 4) MiMage Conference, Mitochondria in Ageing and Age-Related Disease, Les Diablerets, Switzerland (2009): *p53/cep-1 Increases or Decreases C. elegans lifespan Depending on Level of Mitochondrial Bioenergetic Stress: Implications for Human Mitochondrial Associated Diseases.*
- 5) ZingConference Mitochondria, Metabolism and Aging, Lanzarote, Spain (2013): *Autophagy induction extends lifespan and reduces lipids content in response to frataxin silencing in C. elegans* (Last minute Invited Speaker in Session 9 - Mitochondria And Aging).
- 6) Annual meeting of the genetic society of Germany, Braunschweig, Germany (2013): *Mitochondrial-stress Control of Longevity: C. elegans as a powerful genetic model organism.*
- 7) Annual meeting of the German Association for Aging Research (DGfA), Cologne, Germany (2014): *Mitochondrial stress induces an iron starvation response that extends C. elegans lifespan through mitophagy.*
- 8) International Ataxia research Conference, London, UK (2015): *In vivo phenotypic-based screening to identify suppressors of mitochondrial- associated ataxias.*
- 9) 3rd Meeting on the Molecular Biology of Ageing, Groningen, Netherlands (2019): *Mitochondrial bioenergetic changes during development as an indicator of C. elegans health-span.*

iii) Invited speaker: Conferences, Seminars and Lectures

- 1) Laboratory of Molecular Genetics, NIEHS, Research Triangle Park, USA (2005): *Crossroads between aging and apoptosis: a role for frataxin.*
- 2) Department of Cell & Molecular Biology, Life Sciences Division, LBNL, San Francisco, USA (2006): *New role for p53 in mediating the stress response of the long-lived C. elegans mitochondrial mutants.*
- 3) 1st Italian C. elegans conference (M.i.C.e.r.co Programme), Napoli, Italy (2007): *p53/cep-1 specifies C. elegans Mitochondrial Mutant Longevity: Implications for the Pathogenesis of Human Mitochondrial Associated Diseases.*
- 4) Department of Radiation Oncology, Division of Radiation Biology, GCCRI/UTHSCSA, San Antonio, USA (2008): *Protective Responses to Mitochondrial Dysfunction and their Role in Disease Prevention and Health Span: p53 double-faced response*
- 5) The Commonwealth Medical Center, Scranton, USA (2008): *C. elegans as a Genetic Tool to Study Protective Responses to Mitochondrial Dysfunction and their Role in Diseases Prevention.*
- 6) XI Congress of Italian Society of Human Genetics (SIGU), Genova, Italy (2008): *C. elegans as a model for human mitochondrial-associated diseases (HMADs): Friedreich's Ataxia.*
- 7) Institute of Biology III Molecular Genetics & Bioinformatics, Freiburg, Germany (2009): *p53/cep-1 Increases or Decreases C. elegans lifespan Depending on Level of Mitochondrial Bioenergetic Stress: Implications for Human Mitochondrial Associated Diseases.*
- 8) Aging and Longevity Symposium: current status and perspective of the aging research. University of Rome "La Sapienza", Rome, Italy (2009): *Exploiting model organisms for the study of aging.*
- 9) Collaborative Research Center on aging, Dusseldorf, Germany (2010): *Exploiting mitochondrial hormesis as a strategy to delay/prevent human mitochondrial associated diseases and prolong healthy lifespan: C. elegans as model organism.*
- 10) Seminar Series PhD course of the Genetic, Biology and Biochemistry Department, University of Turin, Italy (2010): *C. elegans as a Genetic Tool to Study Protective Responses to Mitochondrial Dysfunction and their Role in Diseases Prevention.*
- 11) WhyWeAge Workshop No. 5 "Telomeres / DNA damage / Mitochondria / Cellular Senescence", Brussels, Belgium.
- 12) Environmental Aging Network, Collaborative research centre on aging, Dusseldorf, Germany (2010): *Mitochondrial hormesis as a strategy to extend healthy lifespan: C. elegans as a model organism.*
- 13) Department of Experimental Pathology, University of Bologna, Italy (2010): *Mitochondrial hormesis as a strategy to extend healthy lifespan: C. elegans as a model organism.*
- 14) Institute for Cell and Molecular Biosciences, Medical School Newcastle University (2010): *Mitochondrial hormesis as a strategy to extend healthy lifespan: C. elegans as a model organism.*
- 15) Mitochondrial Research Group, Institute for Ageing and Health Newcastle University (2010): *Exploit mitochondrial hormesis as a strategy to delay Human Mitochondrial-associated Diseases onset and prolong healthy lifespan: C. elegans as model organism.*
- 16) Center for Healthy Aging, University of Copenhagen (2010): *Exploit mitochondrial hormesis to extend healthy lifespan: C. elegans as a model organism.*
- 17) European C. elegans Neurobiology Meeting, Crete, Greece (2010): *Frataxin suppression reduces fat accumulation and induces autophagy, in a p53 dependent manner, independently of a caloric restriction-like response.*
- 18) Medical faculty, Technology Pole University of Marche, Ancona, Italy (2011): *C. elegans as model organism to study aging: mitochondrial control of longevity.*
- 19) Analytica conference, Focus on Mitochondria Workshop, Munich Trade Fair Centre, Germany (2012): *Mitochondrial control of longevity: C. elegans as a model organism.*
- 20) Annual meeting of the BMFZ, Bensheim, Germany (2012): *Mitochondria control of longevity via autophagy regulated by p53 and HIF-1.*
- 21) Sino-German Symposium on Molecular Systems Approaches to Aging, Shanghai, China (2013): *Mitochondrial-stress Control of Longevity - C. elegans as a Model Organism.*
- 22) ABCD Congress - Mechanisms of Cellular Ageing, Ravenna, Italy (2013): *Mitochondrial-stress Control of Longevity - C. elegans as a powerful genetic model organism.*

- 23) Fondazione Santa Lucia and IBCN-CNR, Rome, Italy (2014): *Mitochondrial-stress Control of Longevity: C. elegans as a powerful genetic model organism.*
- 24) Annual meeting BMFZ, Heinrich Heine University of Düsseldorf, Germany (2014): *Mitochondrial stress extends lifespan in C. elegans through neuronal hormesis.*
- 25) ISMuLT: Italian Society of Muscles, Ligaments and Tendons. 2st Scientific Workshop on Stem Cells Aging in Muscle, Ligament and Tendon Pescara, Italy (2014): *Mitochondrial stress control of longevity in the powerful genetic model organism C. elegans.*
- 26) Seminar Series, Master module on "Nematodes - from genes to ecosystems", Institute for Biology, Humboldt-university of Berlin, Germany (2014): *Mitohormesis regulates C. elegans lifespan.*
- 27) DGfA, German Aging Society annual conference, Cologne (2014): *Mitochondrial stress induces an iron starvation response that extends C. elegans lifespan through mitophagy.*
- 28) Campus Hospital Universitario Virgen del Rocío, IBiS, Seville, Spain (2015): *Mitochondrial stress extends C. elegans lifespan via iron-starvation induced mitophagy: implications for age-associated neuronal decline.*
- 29) Institut de Ciència de Materials de Barcelona, ICMA-B-CSIC, Bellaterra, Spain (2017): *C. elegans as a screening tool to identify mitochondrial-targeting interventions modulating lifespan.*
- 30) Seminar Series, Medical Faculty Università politecnica delle Marche, Ancona, Italy (2017): *Il C. elegans come modello per lo studio del ruolo dei mitocondri nel processo di invecchiamento.*
- 31) Mid-term symposia Join Program Initiative – A Healthy Diet for a Healthy Life, Brussels, Belgium (2017): *Nutritional targeting of the mitochondria-tyr-kinase axis to prevent age-associated neuronal decline – MiTyrAge.*
- 32) Seminar Series PhD Molecular and Cellular Biology, University of Tor Vergata, Rome, Italy (2017): *Mitochondrial stress control of longevity: C. elegans as a powerful genetic model organism.*
- 33) COST Action Principal investigator meeting, Group of C. elegans new investigators in Europe (GENiE), Chateau Liblice, Czech Republic (2017): *Mitochondrial adaptation to environmental interventions.*
- 34) Proteostasis Genie meeting, Split, Croatia (2017): *Pro-longevity frataxin suppression delays age-associated proteotoxicity in the nematode Caenorhabditis elegans.*
- 35) European Research Institute for the Biology of Ageing, Gronigen, Nederland (2018): *C. elegans as a powerful model organism to assess the role of mitochondria in the ageing process. (Shortlisted interview for Group leader position)*
- 36) Junior GBM Sommersymposium 2018 "Rhein into Research", Düsseldorf, Germany (2018): *How to stay young and live longer – lessons from an old worm -*
- 37) The Aryl Hydrocarbon Receptor (AhR) meeting, Paris, France (2018): *The Aryl Hydrocarbon Receptor (AhR) influence healthy ageing: new roles for an old, evolutionarily conserved player.*
- 38) Autophagy symposium, Heinrich Heine University of Düsseldorf (2018): *Mitophagy control of the aging process.*
- 39) Centro Andaluz de Biología del Desarrollo Universidad Pablo de Olavide Seville, Spain (2018): *Pro-longevity mitochondrial stress promotes BRCA/BARD1-mediated apoptotic resistance in C. elegans in a cell-non-autonomous manner.*
- 40) University of Paris Descartes, Paris, France (2019): *The Aryl Hydrocarbon Receptor (AhR) influence healthy ageing: new roles for an old, evolutionarily conserved player.*
- 41) Final JPI HDHL symposia, Brussels, Belgium (2019): *Targeting the mitochondria-tyr kinase axis to prevent age-associated neuronal decline (MiTyrAge).*
- 42) University of Osnabrück, Germany (2019): *From organelles to organisms: C. elegans as a powerful genetic tool to investigate the in vivo consequences of perturbing mitochondria.*

Publications list (total 44, h-index: 22 Scopus)

(@ corresponding author; * or ^ equal contribution)

i) Original Research Articles (total 29)

- 1) Malisan F, Franchi L, Tomassini B, Ventura N, Condo I, Rippo MR, Rufini A, Liberati L, Nachtigall C, Kniep B, Testi R. (2002) Acetylation suppresses the proapoptotic activity of GD3 ganglioside. **J Exp Med** 196: 1535-1541 (IF 15.837)
- 2) Barila D, Rufini A, Condo I, Ventura N, Dorey K, Superti-Furga G, Testi R. (2003) Caspase-dependent cleavage of c-Abl contributes to apoptosis. **Mol Cell Biol** 23: 2790-2799 (IF 8.142)
- 3) Cicconi S, Ventura N, Pastore D, Bonini P, Di Nardo P, Lauro R, Marlier LN. (2003) Characterization of apoptosis signal transduction pathways in HL-5 cardiomyocytes exposed to ischemia/reperfusion oxidative stress model. **J Cell Physiol** 195: 27-37 (IF 5.463)
- 4) Ventura N, Rea S, Henderson ST, Condo I, Johnson TE, Testi R. (2005) Reduced expression of frataxin extends the lifespan of *Caenorhabditis elegans*. **Aging cell** 4: 109-112 (IF 5.9)
- 5) Condo I*, Ventura N*, Malisan F, Tomassini B, Testi R. (2006) A pool of extramitochondrial frataxin that promotes cell survival. **J Biol Chem** 281: 16750-16756 (IF 5.808)
- 6) Condo I, Ventura N, Malisan F, Rufini A, Tomassini B, Testi R (2007) In vivo maturation of human frataxin. **Hum Mol Genet** 16: 1534-1540 (IF 9.08)
- 7) Kell A, Ventura N, Kahn N, Johnson TE (2007) Activation of SKN-1 by novel kinases in *Caenorhabditis elegans*. **Free Radic Biol Med** 43: 1560-1566 (IF 4.81)
- 8) Rea SL*, Ventura N*, Johnson TE. (2007) Relationship between mitochondrial electron transport chain dysfunction, development, and life extension in *Caenorhabditis elegans*. **PLoS Biol** 5: e259 (IF 13.5)
- 9) Ventura N*, Rea SL.* (2007) *Caenorhabditis elegans* mitochondrial mutants as an investigative tool to study human neurodegenerative diseases associated with mitochondrial dysfunction. **Biotechnol J** 2: 584-595
- 10) Ventura N®, Rea SL, Schiavi A, Torgovnick A, Testi R, Johnson TE. (2009) p53/CEP-1 increases or decreases lifespan, depending on level of mitochondrial bioenergetic stress. **Aging cell** 8: 380-393 (IF 8.33)
- 11) Torgovnick A, Schiavi A, Testi R, Ventura N. (2010) A role for p53 in mitochondrial stress response control of longevity in *C. elegans*. **Exp Gerontol** 45: 550-557 (IF 3.7)
- 12) Butler JA, Ventura N, Johnson TE, Rea SL. (2010) Long-lived mitochondrial (Mit) mutants of *Caenorhabditis elegans* utilize a novel metabolism. **Faseb J** 24: 4977-4988 (IF 5.71)
- 13) Rufini A, Fortuni S, Arcuri G, Condo I, Serio D, Incani O, Malisan F, Ventura N, Testi R. (2011) Preventing the ubiquitin-proteasome-dependent degradation of frataxin, the protein defective in Friedreich's ataxia. **Hum Mol Genet** 20: 1253-1261 (IF 9.67)
- 14) Guccini I, Serio D, Condò I, Rufini A, Tomassini B, Mangiola A, Maira G, Anile C, Fina D, Pallone F, Mongiardi MP, Levi A, Ventura N®, Testi R®, Malisan F.® (2011) Frataxin participates to the hypoxia-induced response in tumors. **Cell Death Dis** 2: e123 (IF 6.21)
- 15) Arczewska KD, Tomazella GG, Lindvall JM, Kassahun H, *Maglioni S*, *Torgovnick A*, Henriksson J, Matilainen O, Marquis BJ, Nelson BC, Jaruga P, Babaie E, Holmberg CI, Burglin TR, Ventura N, Thiede B, Nilsen H. (2013) Active transcriptomic and proteomic reprogramming in the *C. elegans* nucleotide excision repair mutant xpa-1. **Nucleic Acids Res** 41: 5368-5381 (IF 9.112)
- 16) Di Gregorio E, Bianchi FT, Schiavi A, Chiotto AM, Rolando M, Verdun di Cantogno L, Grosso E, Cavalieri S, Calcia A, Lacerenza D, Zuffardi O, Retta SF, Stevanin G, Marelli C, Durr A, Forlani S, Chelly J, Montarolo F, Tempia F, Beggs HE, Reed R, Squadrone S, Abete MC, Brussino A, Ventura N, Di Cunto F, Brusco A. (2013) A de novo X;8 translocation creates a PTK2-THOC2 gene fusion with THOC2 expression knockdown in a patient with psychomotor retardation and congenital cerebellar hypoplasia. **J Med Genet** 50: 543-551 (IF 6.335)
- 17) Schiavi A, Torgovnick A, Kell A, Megalou E, Castelein N, Guccini I, Marzocchella L, Gelino S, Hansen M, Malisan F, Condo I, Bei R, Rea SL, Braeckman BP, Tavernarakis N, Testi R, Ventura N. (2013) Autophagy induction extends lifespan and reduces lipid content in response to frataxin silencing in *C. elegans*. **Exp Gerontol** 48: 191-201 (IF 3.485)
- 18) Maglioni S, Schiavi A, Runci A, Shaik A, Ventura N. (2014) Mitochondrial stress extends lifespan in *C. elegans* through neuronal hormesis. **Exp Gerontol** 56:89-98 (IF 3.485)
- 19) Maglioni S, Arsalan N, Franchi L, Hurd A, Opipari AW, Glick GD, Ventura N. (2015) An automated phenotype-based microscopy screen to identify pro-longevity interventions acting through mitochondria in *C. elegans*. **BBA Bioenergetics**. Nov;1847(11):1469-78 (IF 5.353)

- 20) Schiavi A, Maglioni S, Palikaras K, Shaik A, Strapazzon F, Brinkmann V, Torgovnick A, Castelein N, De Henau S, Braeckman BP, Cecconi F, Tavernarakis N, Ventura N. (2015) Iron-Starvation-Induced Mitophagy Mediates Lifespan Extension upon Mitochondrial Stress in *C. elegans*. **Curr Biol**. 25(14):1810-22 (IF 9.571)
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Data

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