

CURRICULUM VITAE ET STUDIORUM Dr. Nicoletta Guaragnella



PERSONAL DATA

NAME	Nicoletta Guaragnella
DATE AND PLACE OF BIRTH	26/07/1976 in Bari
CITIZENSHIP	Italian
POSITION	Researcher at National Research Country (CNR), Institute of Biomembranes, Bioenergetics and Molecular Biotechnologies (IBIOM)
WORK ADDRESS	CNR-IBIOM, Via Amendola 165/A, 70126, Bari, Italy
PHONE NUMBER	+39-0805443380; CELL+39-3470848285; FAX+390805443317
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MAJOR FIELDS Life Science, Biomedical Science, Biotechnology, Applied Biology, Science Exploitation, Communication and Dissemination, Third Mission, Press Office.

COMPETENCES Yeast, Apoptosis, Programmed Cell Death, Integrated Stress Response, Oxidative Stress, Mitochondria to Nucleus Communication

CITATIONS

Citations 761 (Google Scholar)

h-index 17

i10-index 19

Citations 630 (Scopus)

h-index 16

Citations 550 (WoS)

h-index 16

ASN (ABILITAZIONE SCIENTIFICA NAZIONALE)

2017 Abilitazione Scientifica Nazionale dal 05/12/2017 al 05/12/2023 (art. 16, comma 1, Legge 240/10) alle funzioni di Professore Universitario di seconda fascia per il settore concorsuale 05/E1–biochimica generale (SSD BIO/10) BANDO D.D. 1532/2016

2017 Abilitazione Scientifica Nazionale dal 30/11/2017 al 30/11/2023 (art. 16, comma 1, Legge 240/10) alle funzioni di Professore Universitario di seconda fascia per il settore concorsuale 05/F1–biologia applicata (SSD BIO/13) BANDO D.D. 1532/2016

EDUCATION

2007 Training at CNR Press Office, Rome. Supervisor: Marco Ferrazzoli.

2007 Master Degree in "Le scienze della vita nel giornalismo e nei rapporti politico-istituzionali"

110/110 e lode, Università degli Studi 'La Sapienza' di Roma. Thesis on "The University's third mission and science communication: reasons, premises and perspectives". Supervisor: Pietro Greco.

2003 PhD in Biochemistry and Molecular Biology, Università degli Studi di Bari. Thesis on "Mitochondria to nucleus retrograde signaling: the RTG-independent transcriptional control of Ammonium Outward Transporter (ATO3) in *Saccharomyces cerevisiae*".

2003 Professional license for Biologist practice (score 145/150).

2000 Bachelor Degree in Biological Sciences 110/110 e lode, Università degli Studi di Bari. Experimental thesis on “Symporter D-lactate/H⁺ and D-lactate dehydrogenase in rat liver mitochondria”. Supervisors, Prof. Ernesto Quagliariello, Dott.ssa Anna Atlante.

1995 Secondary School Diploma, Liceo Classico Q. Orazio Flacco, Bari – Italy, 60/60 cum laude.

RESEARCH EXPERIENCE

RESEARCH ACTIVITY

2018-up to date Researcher full time (tipo B), Department of Biosciences, Biotechnology and Biopharmaceutics, University of Bari, Italy.

2010-2018 Researcher with a permanent position at National Research Country, Institute of Biomembranes, Bioenergetics and Molecular Biotechnologies (CNR-IBIOM).

She is studying:

The molecular mechanisms of programmed cell death in yeast;

Yeast acetic acid stress response;

The role of mitochondrial retrograde signaling in cell death and survival;

The effect of heterologous expression of human oncosuppressors, such as Breast Cancer Susceptibility gene BRCA2, on cell sensitivity to apoptotic stimuli;

The molecular mechanisms of cell stress response of wild yeast and exploitation of their potential use for biotechnological applications.

2017 Visiting scientist at Department of Biology and Biological Engineering, Chalmers University of Technology, Gothenburg, Svezia

2015-2017 Visiting scientist in Patrizia Romano's laboratory, Scuola di Scienze Agrarie, Forestali, Alimentari ed Ambientali, Università degli Studi della Basilicata, Potenza.

2013 Visiting scientist in Valter Longo's laboratory, Longevity Institute, University of Southern California, Los Angeles, CA, USA.

2004-2009 Post Doc at Department of Health Sciences, University of Molise. She studied the molecular mechanisms of programmed cell death in yeast, focusing on the kinetics and the role of oxidative stress, cytochrome c release and metacaspase activity.

2004 Research Fellow at CNR-IBBE, Bari.

2003 Visiting scientist in Manuela Corte-Real's laboratory, Departamento de Biologia, Universidade do Minho, Braga, Portugal.

2001 Junior Research Fellow in R.A. Butow's laboratory, Department of Molecular Biology, University of Texas Southwestern Medical Centre at Dallas, Texas, USA.

2001-2003 PhD student, Department of Biochemistry and Molecular Biology, University of Bari/Department of Molecular Biology, University of Texas, Southwestern Medical School. She studied mitochondria to nucleus cross talk in yeast *Saccharomyces cerevisiae*, focusing on the expression of retrograde responsive genes whose transcription was independent on regulatory factors called RTG.

2000 Undergraduate student, Department of Biochemistry and Molecular Biology, University of Bari/IBBE-CNR. She studied transport and metabolism of D-lactate in isolated rat liver mitochondria.

POSITIONS HELD

2015-to date Responsible for structure, organization and contents of IBIOM-CNR's website (www.ibiom.cnr.it)

2013-oggi Responsible for activities of public engagement of science, dissemination and science communication for IBIOM-CNR

2012 Scientific coordinator of the project “Morte cellulare programmata: identificazione di target molecolari e di molecole naturali e/o di sintesi ad azione farmacologica” funded by Fondazione Cassa di Risparmio di Puglia

TECHNICAL SKILLS

- cloning techniques;
- analysis of gene and protein expression;
- enzymatic activity assays;
- cell viability and cytotoxic assays;
- analysis of apoptotic markers, including chromatin condensation, DNA fragmentation, determination of intracellular reactive oxygen species, release of cytochrome c, caspase activity;
- generation of knock out and over-expressing yeast strains;
- statistical analysis;
- good command of Microsoft office tools (Word, Excel, Power Point);
- good knowledge of graphic design applications (Corel Draw, Paint, Photoshop).

COMPETENCES

- oral and written communication skills;
- mentoring activities;
- peer review activities for JCR scientific journals and national and international projects;
- team working skills;
- problem solving;
- work planning and organization;
- grant writing and project management;
- courses, meeting and events organization;
- teaching activities;
- scientific dissemination activities;
- press office

AWARDS

2013 Fellowship from Fondazione Gianni Benzi Onlus for VI Foresigh Training Course on “Biotech and Innovative Science to meet Patients needs”, Bari, Italia.

2013 Fellowship from Associazione di Biologia Cellulare e del Differenziamento for ABCD meeting, Ravenna, Italia.

2013 Fellowship from CNR for Short-term mobility in Prof. Valter Longo’s laboratory, Longevity Institute, University of Southern California, Los Angeles, CA, USA.

2013 Award for the picture “Yeast Pop Hearts” within the national competition “Riscatta la Scienza”, 90 years of CNR.

2012 Fellowship from CNR for “Corso di management e valorizzazione della Ricerca”, CNR-Psc, Genova.

2011 Fellowship from Società Italiana di Biochimica e Biologia Molecolare for 36th FEBS Congress, Biochemistry for Tomorrow’s medicine, *2011 Torino, Italia*.

2008 Fellowship from Società Italiana di Biochimica e Biologia Molecolare for *33rd Federation of European Biochemical Societies Congress & IUBMB Conference, luglio 2008 Athens, Greece*.

2006 Fellowship from Azienda Farmaceutica Shering for Master ‘Le scienze della vita nel giornalismo e nei rapporti politico-istituzionali’, aa. 2006-07 Università di Roma La Sapienza.

COURSES

2016 Training course on “Valorizzare la ricerca: come tutelare, come promuovere e come impiegare i risultati e le competenze”, Bari.

2013 VI Foresigh Training Course on “Biotech and Innovative Science to meet Patients needs”, Fondazione per la ricerca farmacologica Gianni Benzi Onlus, Bari.

2012 Course on “Management e valorizzazione della ricerca”, CNR-Psc, Genova.

2012 International MAITRE Course on “Bringing Media and Science together”, ISPA-CNR, Bari.

2010 Advanced Course on “Tecnologie emergenti per la Genomica funzionale”, CNR Istituto di Biologia e Patologia Molecolari, Roma.

2010 Course on “Citometria a Flusso”, CNR IBBE, Bari.

2009 Workshop “Next Generation Sequencing”, Bari.

PUBLICATIONS

Total number of articles on international JCR journals: **35**
First Author (or Joint First Author): **21** publications (**60%**)
Total number of articles on Q1 journals (%): **22 (63%)**
Total number of articles on Q2 journals (%): **6 (18%)**
Total citations: **892** Google Scholar; **612** (Scopus); **550** (ISI-Web of Science)
Average of citations: **14,86** (ISI-Web of Science)
H-index: **18** (Google Scholar); **16** (Scopus); **16** (ISI-Web of Science)
Book chapters: **3**
Communications at national and international meetings: **36**
Selected or invited speaker (%): **12 (33%)**

Publications

- Guaragnella N.**, Stirpe M., Marzulli D., Mazzoni C., Giannattasio S. (2019) Acid stress triggers resistance to acetic acid-induced regulated cell death through Hog1 activation which requires *RTG2* in yeast. *Oxidative Medicine and Cellular Longevity* 2019:4651062.
- Guaragnella N.**, Coyne L, Chen XJ, Giannattasio S. (2018) Mitochondria-cytosol-nucleus crosstalk: learning from *Saccharomyces cerevisiae*. *FEMS Yeast Res* 18(8). doi: 10.1093/femsyr/foy088
- Guaragnella N.**, Stirpe M, Burhans W, Côte-Real M, Gourlay C, Ludovico P, Madeo F, Petranovic D, Winderickx J, Mazzoni C, Giannattasio S. (2018) New perspectives from South-Y-East, not all about death. A report of the 12th International Meeting on Yeast Apoptosis in Bari, Italy, May 14th-18th, 2017. *Microbial Cell*, 5:112-115, doi: 10.15698/mic2018.02.616
- Carmona-Gutierrez D., Bauer M.A., Zimmermann A.....**Guaragnella N.**.....Madeo F. (2018) Guidelines and recommendations on yeast cell death nomenclature. *Microbial Cell*, DOI 10.15698/mic2018.01.607
- Guerra F.*, **Guaragnella N.***, Arbini A., Bucci C., Giannattasio S. and Moro L. (2017) Mitochondrial Dysfunction: A Novel Potential Driver of Epithelial-to-Mesenchymal Transition in Cancer. **These authors contributed equally to this work* *Frontiers in Oncology* 7. DOI 10.3389/fonc.2017.00295
- Zambuto M., Romaniello R., **Guaragnella N.**, Romano P., Votta S., Capece A. (2017) Identification by phenotypic and genetic approaches of an indigenous *Saccharomyces cerevisiae* wine strain with high desiccation tolerance. *YEAST*, 34:417-426 doi: 10.1002/yea.3245
- Rubino L, **Guaragnella N.**, Giannattasio S. (2016) Heterologous expression of carnation italian ringspot virus p36 protein enhances necrotic cell death in response to acetic acid in *Saccharomyces cerevisiae*. *Mech Ageing Dev.* 2016 Sep 13. doi: 10.1016/j.mad.2016.09.004.
- Laera L*, **Guaragnella N***, Ždravlević M, Marzulli D, Liu Z and Giannattasio S. (2016) The transcription factors *ADR1* or *CAT8* are required for RTG pathway activation and evasion from yeast acetic acid-induced programmed cell death in raffinose. **These authors contributed equally to this work* *Microbial Cell* vol.3 n.12
- Capece A, Votta S, **Guaragnella N**, Zambuto M, Romaniello R, Romano P. (2016) Comparative study of *Saccharomyces cerevisiae* wine strains to identify potential marker genes correlated to desiccation stress tolerance. *FEMS Yeast Res.* 2016 16 (3).
- Moro L, **Guaragnella N**, Giannattasio S. (2015) Silencing of BRCA2 to Identify Novel BRCA2-regulated Biological Functions in Cultured Human Cells. *J Vis Exp.* (102):e52849.
- Longo V, Ždravlević M, **Guaragnella N**, Giannattasio S, Zolla L, Timperio AM.(2015) Proteome and metabolome profiling of wild-type and YCA1-knock-out yeast cells during acetic acid-induced programmed cell death. *J Proteomics.* 128:173-88.

- Ždrlević M, Longo V, **Guaragnella N**, Giannattasio S, Timperio AM, Zolla L. (2015) Differential proteome-metabolome profiling of YCA1-knock-out and wild type cells reveals novel metabolic pathways and cellular processes dependent on the yeast metacaspase. *Mol Biosyst.* 2015 Jun;11(6):1573-83.
- Ždrlević M, **Guaragnella N**, Giannattasio S. (2015) Yeast as a tool to study mitochondrial retrograde pathway en route to cell stress response. *Methods Mol Biol.* 1265:321-31.
- Guaragnella N**, Giannattasio S, Moro L. (2014) Mitochondrial dysfunction in cancer chemoresistance. *Biochem Pharmacol.* 1;92(1):62-72.
- Guaragnella N**, Marra E, Galli A, Moro L, Giannattasio S. (2014) Silencing of BRCA2 decreases anoikis and its heterologous expression sensitizes yeast cells to acetic acid-induced programmed cell death. *Apoptosis.* 19(9):1330-41.
- Guaragnella N**, Palermo V, Galli A, Moro L, Mazzoni C, Giannattasio S. (2013) The expanding role of yeast in cancer research and diagnosis: insights into the function of the oncosuppressors p53 and BRCA1/2. *FEMS Yeast Res.* doi: 10.1111/1567-1364.12094.
- Guaragnella N**, Zdrlević M, Lattanzio P, Marzulli D, Pracheil T, Liu Z, Passarella S, Marra E, Giannattasio S. (2013) Yeast growth in raffinose results in resistance to acetic-acid induced programmed cell death mostly due to the activation of the mitochondrial retrograde pathway. *Biochim Biophys Acta.* 1833(12):2765-74.
- Guaragnella N**, Palermo V, Burhans WC, Gourlay CW, Ludovico P, Madeo F, Giannattasio S, Mazzoni C. (2013) Yeast between life and death: a summary of the Ninth International Meeting on Yeast Apoptosis in Rome, Italy, 17-20 September 2012. *Cell Death Differ.* 20(9):1281-3.
- Giannattasio S, **Guaragnella N**, Zdrlević M, Marra E. (2013) Molecular mechanisms of *Saccharomyces cerevisiae* stress adaptation and programmed cell death in response to acetic acid. *Front Microbiol.* 2013;4:33.
- Giannattasio S., **Guaragnella N.**, Arbin A., Moro L. (2013) Stress-related mitochondrial components and mitochondrial genome as targets of anticancer therapy. *Chem Biol Drug Des* 81(1):102-12.
- Antonacci L., **Guaragnella N.**, Ždrlević M., Passarella S., Ersilia Marra and Giannattasio S. (2012) The N-acetylcysteine-insensitive acetic acid-induced yeast programmed cell death occurs without macroautophagy *Curr. Pharm. Biotechnol.* 13(15):2705-11.
- Guaragnella N.**, Zdrlević M., Antonacci L., Passarella S., Marra E., Giannattasio S. (2012) The role of mitochondria in yeast programmed cell death. *Front. Oncol.* 2, 70.
- Ždrlević M., **Guaragnella N.**, Antonacci L., Marra E. and Giannattasio S. (2012) Yeast as a tool to study signalling pathways in mitochondrial stress response and cytoprotection. *ScientificWorldJournal*, 2012, 912147.
- Guaragnella N.**, Antonacci L., Passarella S., Marra E. and Giannattasio S. (2011) Achievements and perspectives in yeast acetic acid-induced programmed cell death pathways. *Biochem. Soc. Trans.* 39, 1538-43.
- Guaragnella N.**, Passarella S., Marra E., Giannattasio S. (2011) Cytochrome c Trp65→Ser substitution results in inhibition of acetic acid-induced programmed cell death in *Saccharomyces cerevisiae*. *Mitochondrion* 11, 987–991
- Guaragnella N.**, Bobba A., Passarella S., Marra E. and Giannattasio S. (2010) Yeast acetic acid-induced programmed cell death can occur without cytochrome c release which requires metacaspase YCA1. *FEBS Lett.* 584, 224-228.
- Guaragnella N.**, Passarella S., Marra E., Giannattasio S. (2010) Knock-out of metacaspase and/or cytochrome c results in the activation of a ROS-independent acetic acid-induced programmed cell death pathway in yeast. *FEBS Lett.* 584:3655-60.
- Atlante A., Giannattasio S., Antonacci L., **Guaragnella N.**, Lattanzio P., Marra E. and Passarella S. (2008) Cytochrome c is released from coupled mitochondria of yeast en route to acetic acid-induced programmed cell death and can work as an electron donor and a ROS scavenger. *FEBS Letters*, 582:1519-25.
- Valenti D., Vacca RA., **Guaragnella N.**, Passarella S., Marra E. and Giannattasio S. (2008) A transient proteasome activation is needed for acetic acid-induced programmed cell death to occur in *Saccharomyces cerevisiae*, *FEMS Yeast Research*, 8:400-4.
- Guaragnella N.**, Antonacci L., Giannattasio S., Marra E. and Passarella S. (2008) Catalase T and Cu,Zn-superoxide dismutase in the acetic acid-induced programmed cell death in *Saccharomyces cerevisiae*” *FEBS Letters*, 582:210-14.

- Guaragnella N.**, Antonacci L., Passarella S., Marra E. and Giannattasio S. (2007) Hydrogen peroxide and superoxide anion production during acetic acid-induced yeast programmed cell death, *Folia Microbiologica*, 52:237-40.
- **Guaragnella N.**, Pereira C., João Sousa M., Antonacci L., Passarella S., Corte-Real M., Marra E. and Giannattasio S. (2006) YCA1 participates in the acetic acid induced programmed cell death also in a manner unrelated to its caspase-like activity”
FEBS Letters, 580:6880-4.
- Giannattasio S.*, **Guaragnella N.***, Corte Real M., Passarella S. and Marra E. (2005) Acid stress adaptation protects *Saccharomyces cerevisiae* from acetic acid-induced programmed cell death”
*These authors contributed equally to this work
Gene, 354:93-98.
- Guaragnella, N.**, and Butow, R.A. (2003) *ATO3* encoding a putative outward ammonium transporter is an *RTG*-independent retrograde responsive gene regulated by *GCN4* and the SPS amino acid sensor system”
J Biol Chem, 278: 45882-45887.
- de Bari L., Atlante A., **Guaragnella N.**, Principato G. and Passarella S.(2002)
“D-lactate transport and metabolism in rat liver mitochondria”
Biochem J., 365: 391-403.

Book chapters

- Zdravlević M., **Guaragnella N.**, E. Marra and S. Giannattasio. (2013) Mitochondrial stress response and cell adaptation in *Saccharomyces cerevisiae* as a model organism. The Research and Biology of Cancer, iConcept Press.
- S. Giannattasio, **N. Guaragnella** and E. Marra (2012) Molecular mechanisms of programmed cell death induced by acetic acid in *Saccharomyces cerevisiae*, in, Microbial Stress Tolerance for Biofuels, Z.L. Liu (ed.) Microbiology Monographs 22, Springer-Verlag Berlin Heidelberg, 57-75. ISBN 978-3-642-21466-0.
- S. Giannattasio, A. Bobba, P. Lattanzio, **N. Guaragnella**, V. Kučinskas, E. Marra (2009). Genotypic heterogeneity of the molecular basis of cystic fibrosis: the paradigm of lithuanian population genetic testing. In Columbus F. ed. “*Cystic Fibrosis: Etiology, Diagnosis and Treatments*”, Nova Publisher, USA.

Congresses

- Member of the Organising Committee of the 12th International Meeting on Yeast Apoptosis, Bari, Italy 14-18 may 2017

Communications:

- Nicoletta Guaragnella** and Sergio Giannattasio (2019) Mitochondrial (dys)function: a double-edge sword in cell death and survival
INVITED SPEAKER
- Nicoletta Guaragnella** and Sergio Giannattasio (2018) Nutritional status differentially regulates mitochondrial retrograde signalling in yeast.
Small Meeting on Yeast Transport and Energetics 36th (SMYTE 36th), Martina Franca, Italy.
SELECTED SPEAKER
- Loredana Moro, **Nicoletta Guaragnella** and Sergio Giannattasio (2018) Drug resistance, metastasis and mitochondrial dysfunction in cancer: the role of BRCA2. One-day Workshop. The druggable proteome in cancer. Molecular approaches to ameliorate the diagnostic, prognostic and therapeutic indexes in cancer. Università Cattolica del Sacro Cuore, Rome, Italy.
- Nicoletta Guaragnella**, M. Stirpe, D. Marzulli, C. Mazzoni, S. Giannattasio (2017) *RTG2* modulates Hog1p phosphorylation in the evasion of acetic acid-induced programmed cell death in acid-stressed adapted cells. 12th International Meeting on Yeast Apoptosis (IMYA12), Bari, Italy.
SELECTED SPEAKER
- L. Laera, **N. Guaragnella**, Moro L., S. Giannattasio (2017) Identification of active compounds for the development of new anti-prostate cancer drugs. 12th International Meeting on Yeast Apoptosis (IMYA12), Bari, Italy.

-L. Laera, M. Ždravlević, D. Marzulli, **N. Guaragnella**, Z. Liu, S. Giannattasio (2016) Simultaneous mitochondrial retrograde pathway activation and SNF1-dependent relief of glucose repression are responsible for yeast acetic acid induced programmed cell death evasion in raffinose. FISV 2016, Roma, Italy.

-**Nicoletta Guaragnella**, L. Laera, D. Marzulli, S. Giannattasio (2016) Cell fate decision in yeast: within and between glucose sensing, Hog1 SAPK and mitochondrial retrograde pathways. Cell stress: survival and apoptosis (CSSA), Bari, Italy.

SELECTED SPEAKER

-**Nicoletta Guaragnella** Luna Laera, Domenico Marzulli and Sergio Giannattasio (2015) Glucose sensing, HOG1 SAPK and mitochondrial retrograde signaling interplay in yeast cell death and survival. 11th International Meeting on Yeast Apoptosis (IMYA), Porto, Portugal.

-Luisa Rubino, **Nicoletta Guaragnella** and Sergio Giannattasio (2015) Heterologous expression of P36 replicase of *Carnation Italian* ringspot virus in *Saccharomyces cerevisiae*. 11th International Meeting on Yeast Apoptosis (IMYA), Porto, Portugal.

-**Nicoletta Guaragnella** Luna Laera, Domenico Marzulli and Sergio Giannattasio (2015) How nutrient sensing pathways interact in cell life and death decisions in response to environmental stress: lessons from yeast. The Biennial Congress of the Italian Association of Cell Biology and Differentiation, Bologna, Italia.

SELECTED SPEAKER

-Marianna Zambuto, Sonia Votta, **Nicoletta Guaragnella**, Patrizia Romano and Angela Capece (2015) Comparative study of *Saccharomyces cerevisiae* indigenous wine strains to identify potential marker genes involved in desiccation stress resistance. 32nd International Specialized Symposium on yeasts, yeast biodiversity and biotechnology in the twenty-first century, Perugia, Italia.

SELECTED SPEAKER

-**Nicoletta Guaragnella**, Domenico Marzulli and Sergio Giannattasio (2015) The High-Osmolarity Glycerol (HOG) and Mitochondrial Retrograde (RTG) signaling interplay in yeast adaptive stress response. 27th International Conference on Yeast Genetics and Molecular Biology (ICYGMB), Levico, Italia.

SELECTED SPEAKER

- Luna Laera, Maša Ždravlević, Domenico Marzulli, **Nicoletta Guaragnella** and Sergio Giannattasio (2015) Yeast acetic-acid induced programmed cell death resistance in raffinose is controlled by co-operation of *ADR1* and *CAT8* with the mitochondrial retrograde regulator *RTG2*. 27th International Conference on Yeast Genetics and Molecular Biology (ICYGMB), Levico, Italia.

-Loredana Moro, **Nicoletta Guaragnella**, Alvaro Galli and Sergio Giannattasio (2015) Loss of BRCA2 protein promotes resistance to anoikis through an evolutionary conserved molecular mechanism. 3rd International Meeting on Hereditary Breast and Ovarian Cancer, Bari, Italia.

-**Nicoletta Guaragnella**, Loredana Moro, Alvaro Galli, Maša Ždravlević, Ersilia Marra and Sergio Giannattasio (2014) The tumor suppressor BRCA2 can modulate programmed cell death through a mechanism conserved in yeast and humans. 10th International Meeting on Yeast Apoptosis, Goteborg, Sweden.

-**Nicoletta Guaragnella**, E. Marra, A. Galli, L. Moro, S. Giannattasio (2014) Silencing of the tumor suppressor BRCA2 decreases anoikis and its heterologous expression exacerbates acetic acid-induced programmed cell death in yeast cells. Cell stress: survival and apoptosis, Bertinoro (FC).

SELECTED SPEAKER

-**Nicoletta Guaragnella**, Maša Ždravlević, Salvatore Passarella, Ersilia Marra and Sergio Giannattasio (2014) Mitochondrial retrograde signaling causes resistance to yeast programmed cell death induced by acetic acid. Metabolism 2014, Lussemburgo.

-**Nicoletta Guaragnella**, Maša Ždravlević, Salvatore Passarella, Ersilia Marra and Sergio Giannattasio (2013) On the role of mitochondria in cell life and death decisions in a yeast model. Associazione di Biologia Cellulare e del Differenziamento (ABCD) Congress, Ravenna, Italia.

SELECTED SPEAKER

-**Guaragnella N.**, Antonacci L., Passarella S., Marra E. and Giannattasio S. (2012) Pro-death and pro-life cellular strategies in yeast: the role of mitochondria. 9th International Meeting on Yeast Apoptosis, Roma, Italia.

INVITED SPEAKER

-Ždravlević M., **Guaragnella N.**, Lattanzio P., Marra E. and Giannattasio S. (2012) Mitochondrial retrograde signaling involvement in acetic acid-induced programmed cell death in yeast *Saccharomyces cerevisiae*. 9th International Meeting on Yeast Apoptosis, Roma, Italia.

- Guaragnella N.,** Zdravlevic M., Marra E. and Giannattasio S. (2012) Yeast programmed cell death: integration of cell adaptation and death pathways through mitochondrial stress response pathways. Meeting Cell stress: survival and apoptosis, Palermo.
- Guaragnella N.,** Zdravlevic M., Antonacci L., Passarella S., Marra E. and Giannattasio S. (2012) Yeast programmed cell death: a new experimental platform for biomedical and agri-food sciences. 1st Biotechnology World Congress, Dubai UAE.
- Guaragnella N.,** Passarella S, Marra E, Giannattasio S (2011). Programmed Cell death occurs through different pathways in *Saccharomyces cerevisiae*. 36th FEBS Congress of the Biochemistry for Tomorrows Medicine. Torino, Italy.
- Guaragnella N.,** Lattanzio P., Marra E., Liu Z. and Giannattasio S. (2011) Mitochondrial retrograde signaling contributes to acetic acid-induced programmed cell death resistance in yeast. 8th *International Meeting on Yeast Apoptosis, Canterbury, UK.*
- SELECTED SPEAKER**
- Giannattasio S., Guaragnella N.,** Antonacci L., Passarella S. and Marra E. (2011) The role of mitochondria in two alternative acetic acid-induced programmed cell death pathways in *Saccharomyces cerevisiae*. 8th *International Meeting on Yeast Apoptosis, Canterbury, UK.*
- S. Giannattasio and N.Guaragnella** (2009) How *Saccharomyces cerevisiae* cells die as a function of time in response to acetic acid: relations among ROS, cytochrome c and caspase-like activity. 7th *International Meeting on Yeast Apoptosis, Graz, Austria.*
- S. Giannattasio, F. Grieco, N. Guaragnella,** E. Marra (2009) “Il lievito *Saccharomyces cerevisiae*: un modello di eucariote unicellulare idoneo per studi di diversità genotipica e fenotipica” *Biodiversità molecolare: concetti di base, tecnologie, applicazioni. Sala Marconi del CNR, Roma.*
- N. Guaragnella,** S.Giannattasio, L. Antonacci, E. Marra and S. Passarella (2008) “Programmed cell death in *Saccharomyces cerevisiae*” 33rd *Federation of European Biochemical Societies Congress & IUBMB Conference, Athens, Greece.*
- S.Giannattasio, N. Guaragnella,** L. Antonacci, S. Passarella and E. Marra (2008) “Lack of cytochrome c release en route to acetic-acid induced programmed cell death in caspase-like gene knock out yeast cells” *International Symposium on Mitochondrial Physiology and Pathology, Bari, Italy.*
- N. Guaragnella** and Sergio Giannattasio (2008) “How *Saccharomyces cerevisiae* die as a function of time in response to acetic acid” 6th *International Meeting on Yeast Apoptosis, Leuven, Belgio.*
- SELECTED SPEAKER**
- N. Guaragnella,** L. Antonacci, S. Giannattasio, E. Marra and S. Passarella (2007) “The role of catalase and superoxide dismutase in acetic-acid induced programmed cell death of the yeast *Saccharomyces cerevisiae*” 5th *Balkan Congress for Microbiology, Budva, Montenegro.*
- S. Giannattasio, N. Guaragnella,** L. Antonacci, P. Lattanzio, S. Passarella and E. Marra (2007) “The yeast *Saccharomyces cerevisiae* as a model to elucidate the mechanism of programmed cell death in eukaryotes” 5th *Balkan Congress for Microbiology, Budva, Montenegro.*
- S.Giannattasio, N. Guaragnella,** L. Antonacci, P. Lattanzio, S. Passarella and E. Marra (2007) “Programmed cell death pathways in yeast” *Molecular Biodiversity and DNA Barcode, Accademia Nazionale dei Lincei, Roma.*
- S. Giannattasio, N. Guaragnella,** S. Passarella and E. Marra (2006) “Yeast programmed cell death triggered by acetic acid: ROS involvement and cytochrome c release” 5th *International Meeting on Yeast apoptosis, Kutná Hora, Repubblica Ceca.*
- N. Guaragnella** (2003) “Comunicazione mitocondrio-nucleo in *Saccharomyces cerevisiae*: identificazione di geni RTG-indipendenti” XVI *Riunione Nazionale dei Dottorandi in discipline Biochimiche, Brallo (Pavia).*
- N.Guaragnella** and R.A. Butow (2002) “Identification of novel RTG-independent retrograde signaling” *Annual Retreat of Molecular Biology Department of University of Texas Southwestern Medical School, Austin (Texas).*

EDITORIAL ACTIVITY

Member of the Editorial Board of the journals:

YEAST (Wiley)

Oxidative Medicine and Cellular Longevity (Hindawi).

REFeree ACTIVITIES

Referee for national (MIUR) and international research projects

Registered at MIUR (REPRIS) as Expert Peer Reviewer for Italian Scientific Evaluation for the section Basic Research

Referee for peer reviewed JCR journals, including Biochemica and Biophysica Acta (Molecular Cell Research) ed.Elsevier; Oxidative Medicine and Cellular Longevity ed. Hindawi; FEMS Yeast Research ed. Wiley; International Journal of Microbiology, Cell Biochemistry and Biophysics ed. Springer; Aging Cell ed.Wiley; Yeast ed.Wiley; Microbial Cell; Chemical Biology and Drug Design, ed.Wiley; Frontiers in Microbiology; Journal of Bioscience and Bioengineering, ed. Elsevier.

PROJECT COORDINATION

2011-2012 Responsible of the Scientific Project “Morte cellulare programmata:identificazione di target molecolari e di molecole naturali e/o di sintesi ad azione farmacologica” funded by Fondazione Cassa di Risparmio di Puglia.

PROJECT COLLABORATION

2019-2021 Project Ministry of Science, Montenegro “New methods for risk stratification for the progression of cancer and Alzheimer's disease in patients in Montenegro – DEMONSTRATE”.

2014-2020 Project POR Puglia FESR 2014-2020. Bando INNONETWORK. “Miglioramento nei processi produttivi di alimenti freschi prodotti da farine mediante approcci basati su tecnologie omiche ed informazioni complesse, elaborate da un sistema informativo progettato e sviluppato in ambiente Cloud”

2017-2018 Project Bilaterale CNR-IBIOM-Italia-Montenegro “Mitochondrial Dysfunction in Cancer Growth, Drug Resistance and Chemotherapy-Induced Neuropathy”

2016-2017 Project “Strumentazione per diagnostica clinica basata su Next Generation Sequencing di acidi nucleici (DICLIMAX) MTJU9H8, Cluster Tecnologici Regionali per l’Innovazione-Regione Puglia.

2015-2017 Project Fondazione Cassa di Risparmio di Puglia “Identificazione di molecole attive per lo sviluppo di nuovi farmaci anti-tumorali contro il carcinoma di prostata”.

2013-2016 Project "Reti di laboratori pubblici di ricerca della Regione Puglia, BioNET-PTP (Biodiversità per la valorizzazione e sicurezza delle produzioni alimentari tipiche pugliesi)

2011-2013 Project FaReBio di Qualità-Farmaci e reti biotecnologiche di qualità, Ministero Italiano dell’Economia e della Finanza. (2011-2013).

2004-2007 Project TIORCAS (Trasferimento Innovazione Organizzazione nella Ricerca nella Cultura nell'Ambiente e nella Sanità) European Project INTERREGIII/A Transfrontaliero Adriatico.

2004 Project P.R.I.N. “Mitochondri vegetali nello stress ossidativo e nell'apoptosi”, Ministero della Cultura Italiana.

2003-2006 Project FIRB, Fondo Investimenti per la Ricerca di Base, “Il riconoscimento molecolare delle interazioni proteina-ligando, proteina-proteina e proteina-superficie; sviluppo di approcci sperimentali e computazionali integrati per lo studio di sistemi di interesse farmaceutico.

TEACHING ACTIVITY

2015-to date Professor of “Laboratorio di Biologia Molecolare e Bioinformatica” (modulo B) del Corso di laurea in Biotecnologie, indirizzo triennale in Biotecnologie Mediche e Farmaceutiche, Dipartimento di Bioscienze, Biotecnologie e Biofarmaceutica, Università degli Studi di Bari.

2006-to date Supervisor of bachelor degree thesis for corsi di laurea in Biologia Cellulare e Molecolare; Scienze Biosanitarie; Biotecnologie Mediche e Farmaceutiche, Università degli Studi di Bari.

2004-2008 Teaching activity in Biochimica, Biologia Molecolare e Manipolazione genetica dei microorganismi, Università del Molise.

2004-2008 Cultore della materia “Biochimica”, Università del Molise.

She wrote a book for the students, entitled “Principi di Biochimica Informazionale”.

THIRD STREAM ACTIVITIES

2019 Member of the jury (writing section) for the 2nd Edition Concorso Vitale Giordano

2018-2019 Contact person CNR-IBIOM for communication plan and press office Start Cup Puglia

2018 Professor for Progetto Piano Nazionale Lauree Scientifiche (PLS) in collaboration with Dipartimento di Bioscienze, Biotecnologie e Biofarmaceutica, Università di Bari.

2018 “Meglio ricercatori che ricercati”, LOG@RITMI, LA PROVOCAZIONE DELLA SCIENZA, Liceo Scientifico Salvemini (Bari)

2017 “Approcci terapeutici e assistenziali in sindrome di Down. Scoprire, conoscere e curare attraverso la ricerca”. In occasione della presentazione del libro di Veronica Tranfaglia “Maritè non morde”

2016 Lievito a misura di vino, European Biotech Week, Dipartimento SAFE, Potenza, Università della Basilicata

2016 “Meglio ricercatori che ricercati”, Progetto Alternanza Scuola-Lavoro, Liceo Scientifico Triggiano (Bari)

2015 “La comunicazione della scienza: così è se vi pare”, Area CNR, Bari.

2015 “Mangiare e digiunare per vivere più a lungo”, Nutrisano EXPO2015, Potenza, Università della Basilicata.

2014-to date “LieviTiamo nella Ricerca”, European Biotech Week, Area CNR, Bari.

2014 “L’Alzheimer in primo piano tra immagini e scienza”, Salone degli Affreschi, Università degli Studi di Bari.

2013-to date Referente Bari, Progetto CNR Scienziati e Studenti.

2008 TIORCAS Meeting finale del Progetto, Campobasso, Università del Molise.

2007 Corso Pratico “Molecular genetic techniques for the analysis of pathogenic mutations of disease-genes”, Campobasso, Università del Molise.

2006 Corso Teorico “Biochemistry and Molecular Biology in Human Medicine”, Institute of Public Health, Podgorica (Montenegro).

2005 TIORCAS Meeting iniziale del Progetto, Campobasso Università del Molise.

2005 Corso teorico e pratico “Recombinant DNA Techniques and their applications”, Istituto di Biomembrane e Bioenergetica, CNR, Bari.

SCIENCE EXPLOITATION, COMMUNICATION AND DISSEMINATION ACTIVITIES

Since 2007 she actively collaborates with CNR-Press Office in Rome and different journals and portals, such as l’Almanacco della Scienza, il portale Scienza in Rete (www.scienzainrete.it), il Distretto dell’informazione scientifica e Tecnologica, la Rivista dell’Ordine Nazionale dei Biologi, la rivista Scienze e Ricerche.

She collaborates with Valter Longo Foundation.

She is responsible for all the activities of science communication and dissemination for IBIOM-CNR: projects “Scienziati e Studenti” and “European Biotech Week”.

She is responsible for the Institute website’s graphics and contents (www.ibiom.cnr.it).

She participated to CNR web TV “Un giorno da ricercatore”.

FOREIGN LANGUAGES

English

SCIENTIFIC SOCIETIES

Società Italiana di Biochimica e Biologia Molecolare (SIB)

Società Italiana di Microbiologia Generale e Biotecnologie Microbiche (SIMGBM)

Società Italiana di Proteomica (ItPA)

Associazione di Biologia Cellulare e del Differenziamento (ABCD)

Società Italiana di Microbiologia Agraria, Alimentare e Ambientale (SIMTREA)

COMPUTER SKILLS

Pacchetto Microsoft Office; Corel Draw; Adobe Photoshop; SPSS.

In fede

A handwritten signature in dark ink, reading "Nicoletta Guareguella". The signature is written in a cursive style with a light blue rectangular highlight behind it.