

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
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MAJOR FIELDS Life Science, Biomedical Science, Biotechnology, Applied Biology, Science Exploitation, Communication and Dissemination

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

CITATIONS

Citations 740 (Google Scholar)

i10-index 18

Citations 539 (Scopus)

h-index 14

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.

RESEARCH EXPERIENCE

RESEARCH ACTIVITY

2010-to date 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

Articles on international JCR journals: 32, with 18 as first author.

Book chapters: 3

Communications at national and international meetings: 32, with 10 as invited or selected speaker .

Publications

-Carmona-Gutierrez D., Bauer M.A., Zimmermann A.....**Guaragnella N**.....Madedo 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.

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.

- 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, Ždravčić 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.
- Ždravčić 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.
- Ždravčić 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**, Zdravčić 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**, Zdravčić 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.**, Ždravčić 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.**, Zdravčić M., Antonacci L., Passarella S., Marra E., Giannattasio S. (2012) The role of mitochondria in yeast programmed cell death. *Front. Oncol.* 2, 70.
- Ždravčić 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 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” 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. Kučinskis, 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**, 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-stress 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 *ADRI* 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

-Zdravlevic 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, Kutnà 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)*.

REFEREE ACTIVITIES

Referee for national (MIUR) and international research projects and 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.

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

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

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

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

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

2004 Progetto P.R.I.N. “Mitocondri vegetali nello stress ossidativo e nell’apoptosi”, Ministero della Cultura Italiana.

2003-2006 Progetto 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, 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”.

ORGANIZATIONS OF COURSES AND EVENTS

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-oggi “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 is responsible for all the activities of science communication and dissemination for IBIOM and for the Institute website’s graphics and contents (www.ibiom.cnr.it).

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

Nicoletta Guaragnella