

CURRICULUM DELL' ATTIVITA' SCIENTIFICA E DIDATTICA**Caterina Missero**

Professore di Biologia Molecolare

Dipartimento di Biologia - Universita' Federico II

Complesso Universitario di Monte S. Angelo – Edificio 7 -

Via Cinthia – 80126 Napoli

CEINGE Biotecnologie Avanzate

via Gaetano Salvatore 486 - 80145 Napoli, Italy

ATTIVITA' SCIENTIFICA

1989 Laurea in Scienze Biologiche con indirizzo biochimico conseguita presso l'Universita' di Trieste, con la votazione di 110/110 e lode.

1989-1992 Postdoctoral Fellow presso il dipartimento di Patologia della Scuola di Medicina di Yale University (New Haven, Connecticut, USA).

1992 Research Scientist (Faculty appointment) presso il Dipartimento di Patologia della Scuola di Medicina di Yale University.

1992-1996 Research Scientist (Faculty appointment) presso il "Cutaneous Biology Research Center" (C.B.R.C.), Massachusetts General Hospital (Charlestown, Massachusetts, USA). Istruttore ("Instructor") presso l'Universita' di Harvard (Cambridge, Massachusetts, USA).

1996-2000 Ricercatore (contratto a tempo determinato, art. 23) presso la Stazione Zoologica "A.Dohrn", Napoli, presso il laboratorio di Biochimica e Biologia Molecolare, diretto dal Prof. R. Di Lauro.

2000-2006 Ricercatore Telethon con responsabilita' di dirigente di un gruppo di ricerca presso il TIGEM (Telethon Institute of Genetics and Medicine), Napoli.

2006 ad oggi Responsabile di un gruppo di ricerca "Group Leader" presso il CEINGE Biotecnologie Avanzate (Centro di Ingegneria Genetica), Napoli

2009 al 2014 Contratto di collaborazione alla Fondazione IRCCS SDN, Napoli

2014-2016 Professore Associato di Biologia Molecolare, Dipartimento di Biologia, Universita' Federico II, Napoli

2017 ad oggi Professore Ordinario di Biologia Molecolare, Dipartimento di Biologia, Universita' Federico II, Napoli

ATTIVITA' DIDATTICA

- 2002-2006 Docente per Ph.D. di Open University (UK) del corso sull'espressione genica e la regolazione della trascrizione per studenti di dottorato.
- 2003 ad oggi Commissario di tesi di dottorato dell' Open University.
- 2010 Idoneo alla valutazione comparativa ad un posto di Professore Associato. Facoltà di SCIENZE BIOTECNOLOGICHE Settore BIO/11 - BIOLOGIA MOLECOLARE (A/01/2008; data di certificazione regolarità atti: 30/07/2010) Università degli Studi di NAPOLI "Federico II" Universita' Federico II
- 2012-ad oggi Docente della scuola di dottorato, programma di Oncologia Molecolare e Genetica Umana della Scuola Europea di Medicina Molecolare, SEMM (European School of Molecular Medicine).
- 2014 ad 2016 Professore associato in Biologia Molecolare 05/E2. Dipartimento di Biologia
- 2014 Abilitazione scientifica nazionale in Biologia Applicata 05/F1 – I Fascia valida dal 22/01/2014 al 22/01/2018.
- 2014 Abilitazione scientifica nazionale in Genetica e Microbiologia settore 05/I1 – I Fascia valida dal 23/01/2014 al 23/01/2018.
- 2014 Abilitazione scientifica nazionale in Biologia Molecolare 05/E2 – I Fascia valida dal 12/02/2014 al 12/02/2018.
- 2013/2014 Docente del corso di Applicazioni in Bioinformatica, per il Laurea Triennale in Biologia Generale ed Applicata N82, Universita' Federico II
- 2013-2016 Membro del Collegio dei Docenti del Dottorato della SEMM (European School of Molecular Medicine)
- 2017 ad oggi Professore ordinario in Biologia Molecolare 05/E2. Dipartimento di Biologia
- 2014-2017 Docente del corso di Biologia Molecolare Avanzata e Bioinformatica, per la Laurea Magistrale in Biologia N92, Universita' Federico II
- 2017-2018 Docente del modulo di Biologia Molecolare Avanzata (01863), corso di Biologia Molecolare Avanzata e Bioinformatica (26301), per la Laurea Magistrale in Biologia N92, Universita' Federico II
- 2017-2018 Docente del corso di Genomica Marina in lingua inglese (U0482), modulo del corso in Genetica della conservazione, Genomica marina e laboratorio (U0481), per la Laurea Magistrale in Biologia ed Ecologia dell'Ambiente Marino ed Uso sostenibile delle sue risorse (Laurea MARE, LM6), Universita' Federico II.

<u>2016 ad oggi</u>	Membro del Collegio dei Docenti e responsabile per la didattica del Dottorato in Biologia, Università Federico II.
<u>6-2017 ad oggi</u>	Membro della Commissione Didattica del CdS di Biologia
<u>2019-2022</u>	Membro della Giunta Dipartimentale
<u>2019</u>	Membro del gruppo del riesame GRIE per la laurea MARE
<u>2020</u>	Membro del Consiglio della Scuola Politecnica e delle Scienze
<u>2020</u>	Commissione di Ateneo per la selezione di progetti scientifici intrateneo (progetti FRA)

RICONOSCIMENTI SCIENTIFICI E BREVETTI

<u>2006 -2009</u>	Vincitore di Borsa di studio a livello Group Leader per la formazione nella ricerca nel campo della biologia molecolare e della biotecnologia avanzata presso il CEINGE, Biotecnologie Avanzate Scarl (Napoli) in convenzione con il Ministero dell'Università e della ricerca (MUR).
<u>2008</u>	Co-inventore del brevetto internazionale 2008/140713 (WO 2008140713 A1) dal titolo: Methods and products for treating proliferative disorders. P.Reed Larsen, Antonio Bianco, Domenico Salvatore, Monica Dentice, Caterina Missero.

SOCIETA' SCIENTIFICHE E ORGANIZZAZIONE DI CORSI E CONGRESSI

<u>1997 ad oggi</u>	Membro della Società Italiana di Biofisica e Biologia Molecolare (SIBBM).
<u>1999</u>	Organizzatore del corso teorico e pratico della Società Italiana di Biofisica e Biologia Molecolare, dal titolo: "Trasduzione del segnale: dal recettore al nucleo."
<u>2006</u>	Membro del American Society of Microbiology (ASM).
<u>2008</u>	Docente del corso intitolato "Developmental Biology and Clinical Dysmorphology" organizzato dalla European Genetics Foundation (Bertinoro, Italia).
<u>2012 ad oggi</u>	Membro dell'Associazione di Biologia Cellulare e del Differenziamento (ABCD).
<u>2012 ad oggi</u>	Membro ESDR/SID (European Society of Dermatological Research e Society of Investigative Dermatology)
<u>2012</u>	Organizzatore locale del congresso internazionale ESDR
<u>2013-2016</u>	Membro del Direttivo e Tesoriere della Società Italiana di Biofisica e Biologia Molecolare (SIBBM).
<u>2014</u>	Vice Chair del gruppo ABCD Stem Cell Development and Regenerative Medicine.
<u>2016</u>	Chair del gruppo ABCD Stem Cell Development and Regenerative Medicine.
<u>2016</u>	Organizzatore del SIBBM meeting 2016 "From single cell analysis to precision medicine"
<u>2015-2020</u>	Membro del Direttivo ESDR (European Society of Dermatological Research)
<u>2018</u>	Organizzatore del corso ESDR/EADV Summer school in advanced molecular tools in dermatological research

2019 Chair del Programma Scientifico del meeting ESDR2019, Bordeaux Francia, 18-21 Settembre (<http://esdrmeeting.org/index.php/organisation/>)

EDITORE E REVISORE PER RIVISTE INTERNAZIONALI

2012- 2015 Editorial Board Member of Frontiers in Endocrinology
 2013 ad oggi Editorial Board Member di Experimental Dermatology (IF 2014 3.672)
 2015- 6/2017 Associate Editor of Journal Investigative Dermatology (IF 2014 7.216)
 7/2017 ad 9/2020 Editorial Consultant of Journal Investigative Dermatology (IF 2016 6.287)

Revisore di articoli per le seguenti riviste:

American Journal of Medical Genetics, BMC Genomics, British Journal of Dermatology, Cancer Research, Cell Growth and Differentiation, Cell Death and Differentiation, Clinical and Experimental Dermatology, Development, Differentiation, Experimental Dermatology, FEBS, Gene, International Journal of Developmental Biology, Journal of Biological Chemistry, Journal of Investigative Dermatology, Molecular and Cellular Biology, PLoS One, Science

REVISIONE DI PROGETTI DI RICERCA INTERNAZIONALI

Valutatore di progetti di ricerca per il quinto e sesto programma quadro del programma “Life Science: Genomic and Biotechnology for Health”, Commissione Europea, Bruxelles, Belgio

Revisore di progetti ERC, MRC (Medical Research Council, UK), BBSRC (Biotechnology and Biological Sciences Research Council, UK), Swiss National Science Foundation, DEBRA UK, FWO (Research Foundation – Flanders, Netherlands), FWF Austrian Science Fund, INSERM (Francia)

Revisore di progetti H2020-WIDESPREAD-Twinning, Commissione europea

FINANZIAMENTI OTTENUTI PER LA RICERCA

FIRB Progetti Autonomi 2001

Euro 150.000

Caratterizzazione su larga scala di nuovi geni regolatori coinvolti nello sviluppo e nel differenziamento della cute.

Missero, C.

NATIONAL INSTITUTE OF ARTHRITIS AND MUSCULOSKELETAL AND SKIN DISEASES, NIH (USA)

US dollars 25.000

Byers, P., Missero, C.

28/09/2001 - 31/07/2003

IDENTIFICATION AND EXPRESSION OF SKIN-SPECIFIC GENES

Specific aims: I. To identify genes that are expressed uniquely or at high levels in skin (which will include epidermis, epidermal appendages, and dermis) by use of existing libraries and bioinformatic tools. II. To localize expression of selected transcripts in specific skin domains with an emphasis on epidermis and associated epidermal appendages

Fondazione Telethon

Euro 150.000

Missero, C., Banfi, S.

07/01/2003 – 06/30/2006

FUNCTIONAL ANALYSIS OF CONSERVED GENOMIC SEQUENCES (CST) AND THEIR ROLE IN HUMAN GENETIC DISEASES.

Specific aims: I. Selection by bioinformatic analysis of a subset of CSTs for further characterization. II. Identification of transcribed sequences within the selected subset of CSTs. III. Identification of non-transcribed CSTs playing a role in regulation of gene expression. IV. Involvement of the selected CSTs in the pathogenesis of human diseases. V. Detailed functional in vivo analysis of a restricted number of relevant CSTs. VI. Bioinformatic analysis of the selected CSTs and development of a novel algorithm to identify of Cis-Regulatory Elements in CSTs.

National Foundation of Ectodermal Dysplasia (USA) US dollars 25.000

Dotto, G.P., Missero, C. 4/1/2004 – 3/31/2005

IDENTIFICATION OF P63 TRANSCRIPTIONAL TARGETS DIFFERENTIALLY REGULATED IN AEC SYNDROME.

Specific aims: I. Effect of p63 in cell proliferation and stem cell renewal. II. p63 as a crucial regulator of terminal differentiation of keratinocytes. III. Characterization of molecular defects in the AEC syndrome.

National Foundation of Ectodermal Dysplasia (USA) US dollars 25.000

Missero, C. 4/1/2005 – 3/31/2006

GENERATION OF A MOUSE MODEL FOR AEC SYNDROME

Specific aims: I. Generation of a mouse model for AEC syndrome. II. Analysis of AEC mouse phenotype

EU Sixth Framework Programme FP6 Euro 120.000

Stupka, E., Missero, C. 1/1/2005 – 31/12/2007

NOVEL TOOL FOR HIGH-THROUGHPUT CHARACTERIZATION OF GENOMIC ELEMENTS REGULATING GENE EXPRESSION IN CHORDATES.

Specific aim: I. Genome wide identification of Multi Species Conserved Sequences (MCSs) within orthologous non-coding regions of chordate TFs. II. Characterization of the activity of the identified MCSs in *Ciona* and zebrafish embryos, mammalian cells as well as in transgenic mice. III. Training of a novel algorithm to predict and characterize MCSs active in various model systems. IV. Comprehensive determination of the in vitro DNA-binding specificity of all transcription factors in a chordate genome. V. Building novel bioinformatics models of TF binding sites based on complex grammars such as Hidden Markov Models and Stochastic Context Free Grammar.

Associazione Italiana per la Ricerca sul Cancro (AIRC) Euro 125.000

Missero, C. 1/01/2006 – 31/12/2008

Italian Association for Cancer Research (Italy)

ROLE OF THE TRANSCRIPTION FACTOR FOXE1 IN BASAL CELL CARCINOMA.

Specific aims: I. Generation of transgenic mice overexpressing Foxe1 in skin to test whether Foxe1 expression is sufficient to induce BCC by itself or in cooperation with other targets of the Shh signaling pathway. II. Generation of animal models to test the hypothesis that Foxe1 is required for BCC development. III. Comparative global analysis of gene expression to test the hypothesis that Foxe1 plays a role in cell proliferation, cell survival and/or invasion in BCC.

National Foundation of Ectodermal Dysplasia (USA) US dollars 25.000

Missero, C. 4/1/2007 – 3/31/2008

CHARACTERIZATION OF THE MOLECULAR DEFECTS IN A MOUSE MODEL FOR THE AEC SYNDROME.

Specific aims: I. Alteration of epidermal cell identity caused by specific p63 mutations is at the basis of the AEC syndrome. We will test the hypothesis that one of the earliest abnormalities in the embryonic skin of AEC mutants is the inappropriate expression of simple epithelial markers, preceding any sign of inflammation and/or erosion. II. Crucial regulators of tissue identity are directly controlled by p63. We will identify direct p63 targets that either control expression of genes typically expressed in simple epithelia or are the simple epithelial genes.

Fondazione Telethon

Euro 201.250

Missero, C.

01/11/2006 – 31/10/2009

PATHOGENETIC MECHANISMS UNDERLYING THE AEC SYNDROME: GENERATION OF MOUSE MODELS AND CHARACTERIZATION OF TARGET GENES.

Specific aims: I. To test the hypothesis that p63 is involved in maintaining keratinocytes in a proliferative state, by preventing growth arrest through direct inhibition of a subset of cell cycle related genes including, in part, some p53 target genes. II. To test the hypothesis that p63 may prevent terminal differentiation in basal keratinocytes directly through inhibition of some differentiation markers, and indirectly through concomitant inhibition of the Notch-Hes pathway. III. To test the hypothesis that skin defect in the AEC syndrome depend upon re-activation of genes normally expressed in simple epithelia, and kept under a repress state by p63 in stratified epithelia, as suggested by our preliminary data in keratinocytes expressing the AEC mutants. IV. To test the hypothesis that the p63 alpha isoforms play an essential role in skin development by suppressing simple epithelia markers, thus promoting stratification, and by maintaining the balance between growth and differentiation.

Associazione Italiana per la Ricerca sul Cancro (AIRC) Euro 165.000

Missero, C.

1/01/2008 – 31/12/2010

Italian Association for Cancer Research (Italy)

CHARACTERIZATION OF P63 FUNCTION IN HUMAN EPIDERMAL NEOPLASIA.

Specific aim: I. We will test the hypothesis that p63 may be a crucial determinant of proliferation in human epidermal cells and in SCC, by its ability to control G1 progression through direct regulation of some of its target genes, including the CKS1b kinase, and/or miR-34. II. We will determine the role of p63 and its downstream targets in control of keratinocyte tumor development, by *in vivo* skin reconstitution and tumorigenicity assays with genetically modified human primary keratinocytes and SCC cells. III. The impact of p63 on proliferation and tumorigenesis will be evaluated in the context of cells expressing cutaneous SCC specific-*p53* mutants, with either loss-of-function or gain-of-function properties. Similarly, the role of p63 in SCC development will be evaluated in keratinocytes in which the expression of the various p73 isoforms has been altered. IV. We will test the hypothesis that regulation of the BMP pathway by p63 may significantly contribute to its role in tumorigenesis, by affecting BMP7 and SMAD7 expression.

National Foundation of Ectodermal Dysplasia (USA) US dollars 25.000

Missero, C.

4/1/2009 – 3/31/2010

MOLECULAR PATHOGENESIS OF THE AEC SYNDROME AND ITS TREATMENT WITH THERAPEUTIC RNAI.

Specific aims: I. *p63^{+/AEC}* stem cells have a reduced proliferative potential resulting in skin

hypoplasia and epidermal fragility. A defect in keratinocyte stem cells would explain the overall reduction in the number of epidermal cells that we observed in the *p63^{+/AEC}* mouse, in the absence of decreased number of proliferating cells in the basal layer or a defect in terminal differentiation in the suprabasal layers. II. Reduced cell adhesion and/or mechanical strength contribute to epidermal fragility in AEC syndrome. III. Developmental defects can be rescue by selectively inhibiting the expression of the *p63^{AEC}* allele without affecting the wild-type one. To this purpose a lipidoid formulation of allele-specific small interfering RNAs (RNAi) will be delivered *in utero*.

Fondazione Telethon
Euro 276.200

Missero, C.

01/11/2009 – 31/10/2012

MECHANISMS INVOLVED IN SKIN DEFECTS IN AEC SYNDROME AND DEVELOPMENT OF THERAPEUTIC STRATEGIES.

Specific aims: 1) the hypoplastic phenotype observed in *p63+/L514F* mice may be due to a keratinocyte progenitor defect; 2) epidermal fragility in the *p63+/L514F* mice is due to reduced mechanical strength caused by an unbalanced keratin expression; 3) the SAM domain is required for the interaction between p63 alpha and crucial co-factor(s) that control the expression of a specific subset of p63 target genes; 4) identification of optimal strategies for gene correction in keratinocyte progenitor cells may lead to development of a gene therapy for AEC syndrome.

National Foundation of Ectodermal Dysplasia (USA) US dollars 25.000

Missero, C.

4/1/2012 – 3/31/2013

CHARACTERIZATION OF A NOVEL CONDITIONAL MOUSE MODEL FOR AEC SYNDROME.

Specific aims: 1) Epidermal fragility in AEC syndrome is due to deregulated cell adhesion caused by reduced expression of components of the desmosomes (cell-cell junctions). 2) Epidermal defects in AEC syndrome are likely to affect the risk of developing skin cancer.

European research projects on rare diseases Euro 150.000

Missero, C.

01/01/2012 – 31/12/2014

IN VITRO AND IN VIVO MODELS OF CONGENITAL RARE SKIN DISEASES FOR MOLECULAR CHARACTERIZATION AND DRUG SCREENING.

Specific aims (in collaboration with 3 European partners): 1) Production of iPS cells from patients; 2) Epidermal differentiation of patient-derived iPS and controls; 3) Characterization of ED patient iPS cell-derived epidermal cells; 4) Generation of three-dimensional skin equivalent models; 5) Testing drug and therapies; 6) Animal models.

Associazione Italiana per la Ricerca sul Cancro (AIRC) Euro 225.000

Missero, C.

31/12/2011 – 30/12/2014

Italian Association for Cancer Research (Italy)
DISSECTING P63 FUNCTIONS IN SKIN CANCER INITIATION AND PROGRESSION.

Specific aims: 1) p63 may be required for cancer-initiating cells in pre-neoplastic lesions of the skin. 2) p63 depletion may lead to tumor regression in a mouse model of cutaneous SCC. 3) p63 may be predominantly expressed in human and in mouse cancer stem cells (CSCs) and may be required for their maintenance.

Fondazione Telethon
Euro 259.700

Missero, C.

01/1/2013 – 31/12/2015

DISSECTING THE MOLECULAR MECHANISMS UNDERLYING EPIDERMAL DEFECTS

IN AEC SYNDROME.

Specific aims: 1) Characterization of the skin phenotype and of the epidermal stem cell compartment in mouse models for AEC syndrome. 2) Characterization of defective desmosomes and their transcriptional control in mouse models for AEC syndrome. 3) Molecular mechanisms underlying impaired p63 transcriptional activity in AEC syndrome.

Foundation Dind-Cottier - for research on diseases of the skin Euro 30.000

Missero, C.

1/1/2016-31/12/2017

DISSECTING MOLECULAR MECHANISMS AT THE BASIS OF SKIN INFLAMMATION IN AEC SYNDROME

Associazione Italiana per la Ricerca sul Cancro (AIRC) Euro 207.000

Missero, C.

1/1/2016 – 31/12/2018

DISSECTING THE FUNCTION OF THE TRANSCRIPTION FACTOR FOXE1 IN NON-MELANOMA SKIN CANCERS.

Specific aims: 1) To determine the consequences of depleting Foxe1 on BCC tumor formation and maintenance in vivo and in vitro.
 2) To determine Foxe1 function in skin homeostasis, and the mechanisms through which Foxe1 depletion predisposes to the skin hyperplastic lesions.

Fondazione Telethon**Euro 46.877**

Missero, C.

1/3/2016 – 28/2/2017

GENERATION OF A NOVEL MOUSE MODEL FOR SAM SYNDROME.

Specific aims: 1) We will explore the possibility that DSG1 depletion or DSG1 mutations may alter terminal differentiation, cell adhesion and ultimately epidermal barrier function, thereby inducing a specific set of cytokines that may elicit most of the systemic consequences observed in SAM syndrome.
 2) We will assess the consequences of deleting mouse Dsg1 in vivo to study the causes of epidermal and systemic defects in SAM syndrome.

Fondazione Telethon**Euro 240.000**

Missero, C.

1/1/2017 – 31/01/2020

DESIGNING THERAPEUTIC STRATEGIES TO RESCUE EPIDERMAL DEFECTS IN AEC SYNDROME.

Specific aims: 1) Identify small compounds capable of restoring p63 functions in AEC syndrome. 2) Design strategies to alleviate skin erosions and suppress skin and systemic inflammation in AEC syndrome. 3) Design therapeutic genome editing strategy to cure skin defects in AEC syndrome.

Regione Campania**Euro 25000**

IMPROVING DISTAL AIRWAY STEM CELLS PERFORMANCE IN SARS-COV-2

INFECTION.

COVID Task Force CEINGE

Fondazione Telethon**Euro 228.250**

Project number GGP20124

Missero, C.

2021 – 2023

NOVEL THERAPEUTIC APPROACHES FOR AEC SYNDROME.

Specific aims: 1) Establish a gene editing approach to correct the mutant p63 gene independently of the specific mutation using cutting edge technologies suitable for human cell editing.

2) Assess the in vitro and in vivo efficacy and long-term safety of previously identified promising chemical compounds that reactivate p63 in AEC syndrome based on our preliminary results.

Associazione Italiana per la Ricerca sul Cancro (AIRC)	Euro 505.000
IG 2020 - Project number 25116	
Missero, C.	1/1/2021 – 31/12/2025
NOVEL MOLECULAR PATHWAYS AND THERAPEUTIC STRATEGIES IN CUTANEOUS SQUAMOUS CELL CARCINOMA.	
Specific aims:	
1) To test the hypothesis that PARP1 is essential for cSCC self-renewal and maintenance.	
2) ULK3 control of keratinocyte self-renewal and transformation.	
3) Effects of pharmacological inhibition of PARP1 and ULK3 alone or in combination as an effective strategy to induce remission of advanced cSCC.	

SEMINARI E PRESENTAZIONI SU INVITO ALL'ESTERO dal 2002

Maggio 2002 "Mechanisms of gene expression in skin." University of Washington, Seattle (USA)

Maggio 2002 "Role of Foxe1 in skin homeostasis". North American Hair Research Society. Los Angeles (USA)

Settembre 2003 "Identification of genomic regions regulating p63 expression." Skin Erosion Workshop, St. Louis (USA).

Ottobre 2004 "Skin-specific regulation of gene expression in development and disease." Department of Dermatology, University of Michigan (USA).

Novembre 2004 "Skin-specific regulation of gene expression in development and disease." Universita' di Losanna (Svizzera).

Novembre 2006 "Toward An Understanding of the Molecular Basis of the AEC Syndrome." AEC Conference, Houston (USA)

Luglio 2007 "p63 regulates commitment to the keratinocyte cell lineage via a BMP-dependent pathway". Gordon Research Conference, Rhode Island (USA)

Febbraio 2008 "Signaling pathways downstream of p63 in the AEC syndrome". Epistem conference, Ghent, Belgio.

Marzo 2009 "Signaling pathways downstream of p63 in embryonic development" Dipartimento di Biochimica, Universita' di Losanna, Svizzera

Marzo 2009 "Signaling pathways downstream of p63 in embryonic development" ISREC (Swiss Institute for Experimental Cancer Research), Losanna, Svizzera.

Settembre 2009 "Characterization of a mouse model for AEC syndrome." 4th p63/p73 Workshop, Toronto.

Giugno 2011 "p63 function in epidermal development and disease" Gordon Research Conference. White Snow Mountain, VT, USA.

Settembre 2011 "Mechanisms underlying defective epithelial development in AEC syndrome." 5th p63/p73 Workshop, Lione, Francia.

Settembre 2011 "p63 function in epidermal development and disease", Center for Molecular Medicine, Cologne, Germania

Settembre 2012 "Skin fragility is associated with reduced desmosome formation in AEC syndrome." European Society for Dermatological Research 42nd meeting, Venezia, Italy

Settembre 2012 "Unveiling the molecular mechanisms underlying AEC Syndrome". Workshop on rare skin diseases, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel.

Marzo 2015 "p63 function in the epidermis in health and disease". Goethe University of Frankfurt, Germany

Marzo 2016 "Functional and mechanistic insights into the pathogenesis of p63-associated disorders" Center for Molecular Medicine, Cologne, Germania

Aprile 2016 "Novel functional and mechanistic insights into the pathogenesis of AEC syndrome." 7th International p63/p73 workshop, Boston USA, MA

Maggio 2016 "Mutations in the transcription factor TP63 are causative of an inflammatory skin disease associated with a chronic autoimmune proliferative disorder", VII Shanghai Immunodermatology Forum, Shanghai, China

Settembre 2016 "Crosstalk among p53 family members in cutaneous carcinoma" Keynote speaker Lecture at Leo Pharma Research Foundation awards session, European Society for Dermatological Research 46th meeting, Munich (Germany)

Ottobre 2016 "p63 as a master regulator of epithelial stemness, identity, and integrity." In "Changing the Face of Modern Medicine: Stem Cells & Gene Therapy" organized by European Society of Gene & Cell Therapy and International Society for Stem Cell Research, Firenze, Italia.

Maggio 2017 "Novel approaches to target p63-associated genodermatoses" Gordon Conference Epithelial Differentiation & Keratinization, Italy

Luglio 2017 "Functional and mechanistic insights into the pathogenesis of p63-associated disorders." 17th International p53 Workshop, Biopolis, Singapore

Settembre 2017 "Novel approaches to target p63-associated genodermatoses" Dipartimento di Biochimica, Universita' di Losanna, Svizzera

Giugno 2019 “Transcriptional control of gene expression in the skin in health and disease.” ReiThera SRL, Pomezia, Italy

Luglio 2019 “Transcriptional control of gene expression in the skin in health and disease.” Cutaneous Biology Research Center, Mass. Gen. Hosp., Boston, USA

Novembre 2019 “Overlapping transcriptional programs downstream of p63 and p73 promote cutaneous squamous cell carcinoma”. International p53/p63/p73 isoform workshop. Dubrovnik, Croazia.

ELENCO DELLE PUBBLICAZIONI SCIENTIFICHE INTERNAZIONALI

Missero, C., Filvaroff, E., & Dotto, G.P. (1991). Induction of TGF β 1 resistance by the *E1a* oncogene requires binding to a specific set of cellular proteins. **Proc. Natl. Acad. Sci. USA**, 88:3489-3493. (USA)

Missero, C., Ramon y Cajal, S., & Dotto, G.P. (1991). Escape from TGF β control and oncogene cooperation in skin tumor development. **Proc. Natl. Acad. Sci. USA**, 88: 9613-9617. (USA)

Florin-Christensen, M., Missero, C., Dotto, G.P., & Florin-Christensen, J. (1992). The *E1a* gene prevents inhibition of keratinocyte proliferation by dexamethasone. **Exper. Cell Res.**, 203: 285-288. (The Netherlands)

Brissette, J. L., Missero, C., Yuspa, S.H., & Dotto, G.P. (1993). Different levels of v-Ha-RAS p21 expression in primary keratinocytes transformed with Harvey Sarcoma virus correlate with benign versus malignant behavior. **Molec. Carcinog.**, 7: 21-25. (USA)

Florin-Christensen, M., Missero, C., Florin-Christensen, J., Tranque, P., Ramon y Cajal, S., & Dotto, G.P. (1993). Counteracting effects of *E1a* transformation on cAMP growth inhibition. **Exper. Cell Res.**, 207: 57-61. (The Netherlands)

Missero, C., Serra, C., Stenn, K., & Dotto, G.P. (1993). Skin-specific expression of a truncated *E1a* oncoprotein binding to p105-Rb leads to abnormal hair follicle maturation without increased epidermal proliferation. **J. Cell. Biol.**, 121: 1109-1120. (USA)

Esherrick, J.S., DiCunto, F., Flanders, K.C., Missero, C. & Dotto, G.P. (1993). TGF- β 1 induction is associated with TGF β 2 and TGF 3 downmodulation in TPA-induced skin hyperplasia. **Cancer Res.** 53: 5517-5522. (USA)

Cauci, S., Monte, R., Ropele, M., Missero, C., Not, T., Quadrifoglio, F., & Menestrina, G. (1993). Pore-forming and haemolytic properties of the *Gardnerella vaginalis* cytolsin. **Molec. Microb.** 9 (6): 1143-1155. (USA)

Ramon y Cajal, S., Missero, C., Marchetti, E. & Dotto, G.P. (1994). Dermal fibroblasts tumor suppression of ras-transformed keratinocytes is associated with induction of squamous cell differentiation. **Amer. J. Path.** 145(4): 846-855. (USA)

Missero, C., Calautti, E., Eckner, R., Chin, J., Tsai, L.H., Livingston, D.M., & Dotto, G.P. (1995). Involvement of the cell cycle inhibitor Cip1/WAF1 and the transcriptional modulator p300 protein in terminal differentiation. **Proc. Natl. Acad. Sci. USA**, 92, 5451-5455. (USA)

Calautti, E., Missero, C., Stein, P., Ezzel, R. & Dotto, G.P. (1995). *fyn* tyrosine kinase is involved in keratinocyte differentiation control. **Genes Dev.**, 9 (18): 2279-2291. (USA)

Missero, C. & Dotto, G.P. (1996). p21WAF1/Cip1 and terminal differentiation control in normal epithelia. (Review article). **Molec. Cell. Differentiation**, 4 (1): 1-16. (USA)

Enders, G.H., Koh, J., Missero, C., Dotto, G.P., Rustgi, A.K., & Harlow E. (1996). p16 inhibition of primary and transformed squamous epithelial cells. **Oncogene**, 12: 1239-1245. (USA)

Missero, C., Di Cunto, F., Kiyokawa, H., Koff, A., Dotto, G.P. (1996). The absence of p21Cip1/WAF1 alters keratinocyte growth and differentiation and promotes ras-tumor progression. **Genes Dev.**, 10 : 3065-3075. (USA)

Macchia, P.E., Lapi, P., Krude H., Pirro, M.T., Missero, C., Chiovato, L., Souabni, A., Baserga, M., Tassi, V., Pinchera, A., Fenzi, G., Gruters, A., Busslinger, M., Di Lauro, R. (1998). Pax8 mutations associated with congenital hypothyroidism caused by thyroid dysgenesis. **Nat Genetics**, 19 (1): 83-86. (USA)

Missero, C., Cobellis, G., De Felice, M., Di Lauro, R. (1998). Molecular events involved in differentiation of thyroid follicular cells. **Mol. Cell. Endocr.**, 140 (1-2):37-43. (The Netherlands)

Cobellis, G., Missero, C., Di Lauro, R. (1998). Concomitant activation of MAP kinase kinase and Rac increases the proliferative potential of thyroid follicular cells, without affecting their differentiation. **Oncogene**, 17 (16): 2047-2058. (USA)

Foley, J., Wysolmerski, J.J., Missero, C., King, C.S., Philbrick, W.M. (1999) Regulation of parathyroid hormone-related protein gene expression in murine keratinocytes by E1A isoforms: a role for basal promoter and Ets-1 site. **Mol. Cell. Endocrinol.** 156(1-2): 13-23. (USA)

Missero, C., Pirro, M.T., Di Lauro, R. (2000). Multiple Ras downstream pathways mediate functional repression of the homeobox gene product TTF-1. **Mol. Cell. Biol.**, 20 (8): 2783-93. (USA)

Cobellis G., Missero C., Simionati B., Valle G., Di Lauro R. (2001). Immediate early genes induced by H-Ras in thyroid cells. **Oncogene**, 20(18):2281-90. (USA)

Missero, C., Dotto, G.P., Dogliotti, E. (2001). The molecular basis of skin carcinogenesis. in the "The molecular basis of human cancer" Coleman and Tsongalis, **Humana Press**. (USA)

Missero, C., Pirro M.T., Simeone, S., Pischedola, M., Di Lauro, R (2001). The DNA glycosylase T:G mismatch-specific thymine DNA glycosylase represses thyroid transcription factor-1-activated transcription. **J. Biol. Chem.** 2001 276(36): 33569-75. (USA)

Pace, J.M., Corrado, M., Missero, C., Byers, P.H. (2003). Identification, characterization and expression analysis of a new fibrillar collagen gene, COL27A1. **Matrix Biol.**, 22(1) 3-14. (The Netherlands)

Zhang, M., Brancaccio, A., Weiner, L., Missero, C., Brissette, J.L. (2003). Ectodysplasin regulates pattern formation in the mammalian hair coat. **Genesis** Sep;37(1):30-7. (USA)

Brancaccio, A., Minichiello, A., Grachtchouk, M., Antonini, D., Sheng, H., Parlato, R., Dathan N., Andrzej A. Dlugosz, Missero, C. (2004). Requirement of the forkhead gene *Foxe1*, a target of sonic hedgehog signaling, in hair follicle morphogenesis. **Hum. Mol. Gen.**, 13 (21): 2595-2606. (UK)

Wang, J., Devgan, V., Corrado, M., Missero, C., Dotto, G.P. (2005). GITR is a p21^{WAF1/Cip1} transcriptional target conferring resistance of keratinocytes to UV-induced apoptosis. **J Biol Chem.**, 280 (45): 37725-31. (USA)

Antonini, D., Rossi, B., Han, R., Minichiello, A., Di Palma, T., Corrado, M., Banfi, S., Zannini, M., Brissette, J.L., Missero, C. (2006). An autoregulatory loop directs the tissue-specific expression of p63 through a long-range evolutionarily conserved enhancer. **Mol. Cell. Biol.**, 2006;26 3308-3318. (USA)

Nguyen, B.-C., Lefort, K., Mandinova, A., Antonini, D., Devgan, V., Della Gatta, G., Koster, M.I., Zhang, Z., Wang, J., Tommasi di Vignano, A., Kitajewski, J., Chiorino, G., Roop, D.R., Missero^{*}, C., Dotto^{*}, G.P. (2006). Cross-regulation between Notch and p63 in keratinocyte commitment to differentiation. **Genes Dev.**, 2006; 20 1028-1042. (*co-corresponding author and equal contribution). (USA)

Dentice, M., Luongo, C., Huang, S., Ambrosio, R., Elefante, A., Mirebeau-Prunier, D., Zavacki, A.M., Fenzi, G., Grachtchouk, M., Hutchin, M., Dlugosz, A.A., Bianco, A.C., Missero, C., Larsen, P.R., Salvatore, D. (2007). Sonic hedgehog-induced type 3 deiodinase blocks thyroid hormone action enhancing proliferation of normal and malignant keratinocytes. **Proc Natl Acad Sci U S A**, 104(36):14466-71. (USA)

Roure, A., Rothbacher, U., Robin, F., Kalmar, E., Ferone, G., Lamy, C., Missero, C., Mueller, F., Lemaire, P. (2007). A multicassette gateway vector set for high throughput and comparative analyses in *Ciona* and vertebrate embryos. **PLoS ONE**, 2(9):e916.

Antonini, D., Dentice, M., Mahtani, P., De Rosa, L., Della Gatta, G., Mandinova, A., Salvatore, D., Stupka, E., Missero, C. (2008). *Tprg*, a gene predominantly expressed in skin, is a direct target of the transcription factor p63. **J Invest Dermat**, 128(7): 1676-1685. (USA)

Della Gatta, G., Bansal, M., Ambesi-Impiombato, A., Antonini, D., Missero^{*}, C., di Bernardo^{*}, D. (2008). Direct targets of the Trp63 transcription factor revealed by a combination of gene expression profiling and reverse engineering. **Genome Research**, 18(6): 939-48. (*co-corresponding author and equal contribution). (USA)

Fete, M., van Bokhoven, H., Clements, S., McKeon, F., Roop, D.R., Koster, M.I., Missero, C., Attardi, L.D., Lombillo, V.A., Ratovitski, E., Julapalli, M., Ruths, D., Sybert, V.P., Siegfried, E.C., Bree, A.F. (2009). Conference Report: International Research Symposium on Ankyloblepharon-Ectodermal Defects-Cleft Lip and/or Palate (AEC) Syndrome. **The American Journal of Medical Genetics A**, 149A(9):1885-93. (USA)

De Rosa, L., Antonini, D., Ferone, G., Russo, M.T., Yu, P.B., Han, R., Missero, C. (2009). p63 suppresses non-epidermal lineage markers in a BMP dependent-manner via repression of Smad7. **J. Biol. Chem.** 284(44):30574-82. (USA)

Antonini, D., Russo, M.T., De Rosa, L., Garrese, M., Del Vecchio, L., Missero, C. (2010). Transcriptional repression of miR-34 family contributes to p63-mediated cell cycle progression in epidermal cells. **J. Invest. Derm.** 130(5):1249-57. (USA)

Rostagno, P., Wolchinsky, Z., Vigano, AM, Arad, S., Zhou, H., Van Bokhoven, H., Ferone, G., Missero, C., Mantovani, R., Aberdam, D. Virolle, T. (2010). Embryonic stem cells as an ectodermal cellular model of human p63-related dysplasia Syndromes. **Biochem. Bioph. Res. Com.** 23;395(1):131-5. (The Netherlands)

Fessing, M.Y., Mardaryev, A.N., Gdula, M.R., Sharov, A.A., Sharova, T.Y., Rapisarda, V., Gordon, K.B., Smorodchenko, A.D., Poterlowicz, K., Ferone, G., Kohwi, Y., Missero, C., Kohwi-Shigematsu, T., and Botchkarev V.A. (2011). p63 Regulates Satb1 to Control Tissue-Specific Chromatin Remodeling during Development of the Epidermis. **J.Cell.Biol.** 194(6):825-39. (USA)

Rouleau M., Medawar A., Hamon L., Shivtiel S., Wolchinsky Z., Zhou H., De Rosa L., Candi E., de la Forest Divonne S., Mikkola M.L., van Bokhoven H., Missero C., Melino G., Pucéat M., Aberdam D. (2011). Tap63 is Important for Cardiac Differentiation of Embryonic Stem Cells and Heart Development. **Stem Cells** 29(11):1672-83. (The Netherlands)

Mitchell, M., O'Sullivan, J., Missero, C., Blair, E., Richardson, R.E., Antonini, D., Murray, J.C., Shanske, A.L., Schutte, B.C., Romano, R.A., Sinha, S., Bhaskar, S.S., Black, Graeme C., Dixon, J., Dixon, M.J. (2012). Exome sequence identifies RIPK4 as the Bartsocas Papas syndrome locus. **Am. J. Hum. Genet.**, 90 (1):69-75. (USA)

Ferone, G., Thomason, H., Antonini, D., De Rosa, L., Hu, B., Gemei, M., Zhou, H., Ambrosio, R., Rice, D., Acampora, D., van Bokhoven, H., Del Vecchio, L., Koster, M., Tadini, G., Spencer-Dene, B., Dixon, M., Dixon, J., Missero, C. (2012). Mutant p63 causes defective expansion of ectodermal progenitor cells and impaired FGF signaling in AEC syndrome. **EMBO Mol. Med.**, 4 (3) 192-205. (Germany)

Ferone, G. Mollo, M.R., Thomason, H.A., Antonini, D., Zhou, H., Ambrosio, R., De Rosa, L., Salvatore, D., Getsios, S, van Bokhoven, H., Dixon, J., Missero, C. (2013). p63 control of desmosome gene expression and adhesion is compromised in AEC syndrome. **Hum. Mol. Gen.**, 22(3):531-43. (USA)

Günschmann C., Stachelscheid H., Akyüz M.D. , Schmitz A., Missero* C., Brüning* J.C. and Niessen* C.M. (2013). Insulin/IGF-1 controls epidermal morphogenesis via regulation of FoxO-mediated p63 inhibition. (*co-corresponding authors). **Developmental Cell**, 26(2):176-87. (USA)

Antonini D, Sibilio A, Dentice M, Missero C. (2013). An Intimate Relationship between Thyroid Hormone and Skin: Regulation of Gene Expression. **Front Endocrinol** . 2013 Aug 22;4:104. (Switzerland)

Palamaro L, Guarino V, Scalia G, Antonini D, De Falco L, Bianchino G, Fusco A, Romano R, Grieco V, Missero C, Del Vecchio L, Ambrosio L, Pignata C. (2013)

Human skin-derived keratinocytes and fibroblasts co-cultured on 3D poly {varepsilon}-caprolactone scaffold support in vitro HSC differentiation into T-lineage committed cells. **Int Immunol.** 2013 Dec;25(12):703-14. (UK)

Missero C., Antonini D. (2014). Crosstalk among p53 family members in cutaneous carcinoma. **Exp Dermatol.** 23(3):143-6.

Johnson JL, Koetsier JL, Sirico A, Agidi AT, Antonini D, Missero C., Green KJ. (2014). The Desmosomal Protein Desmoglein 1 Aids Recovery of Epidermal Differentiation after Acute Ultraviolet Light Exposure. **J Invest Dermatol.** 124.

Luongo C, Ambrosio R, Salzano S, Dlugosz AA, Missero C., Dentice M. The sonic hedgehog-induced type 3 deiodinase facilitates tumorigenesis of basal cell carcinoma by reducing Gli2 inactivation. **Endocrinology.** 2014 155(6):2077-88.

Mollo MR, Antonini D, Mitchell K, Fortugno P, Costanzo A, Dixon J, Brancati F, Missero C.. p63-dependent and independent mechanisms of nectin-1 and -4 regulation in the epidermis. **Exp Dermatol.** 2014 Nov 12. doi: 10.1111/exd.12593.

Antonini D, Sirico A, Aberdam E, Ambrosio R, Campanile C, Fagoonee S, Altruda F, Aberdam D, Brissette JL, Missero C. A composite enhancer regulates p63 gene expression in epidermal morphogenesis and in keratinocyte differentiation by multiple mechanisms. **Nucleic Acid Res.** 2015 Jan;43(2):862-74. doi: 10.1093/nar/gku1396.

Ferone G, Mollo MR, Missero C. Epidermal cell junctions and their regulation by p63 in health and disease. **Cell Tissue Res.** Jun;360(3):513-28. doi: 10.1007/s00441-014-2108-1.

Mollo MR, Antonini D, Cirillo L, Missero C. Research Techniques Made Simple: Skin Carcinogenesis Models: Xenotransplantation Techniques. **J Invest Dermatol.** 2016 Feb;136(2):e13-7. doi: 10.1016/j.jid.2015.12.015.

Di Girolamo D, Ambrosio R, De Stefano MA, Mancino G, Porcelli T, Luongo C, Di Cicco E, Scalia G, Vecchio LD, Colao A, Dlugosz AA, Missero C., Salvatore D, Dentice M. A reciprocal thyroid hormone-microRNA21 interplay regulates Hedgehog pathway-driven skin tumorigenesis. **J Clin Invest.** 2016 Jun 1;126(6):2308-20. doi: 10.1172/JCI84465.

Missero C. The genetic evolution of skin squamous cell carcinoma: tumor suppressor identity matters. **Exp Dermatol.** 2016 Nov;25(11):863-864. doi: 10.1111/exd.13075.

Antonini D, Mollo MR, Missero C. Research Techniques Made Simple: Identification and Characterization of Long Noncoding RNA in Dermatological Research. **J Invest Dermatol.** 2017 Mar;137(3):e21-e26. doi: 10.1016/j.jid.2017.01.006.

Missero C., Antonini D. p63 in Squamous Cell Carcinoma of the Skin: More Than a Stem Cell/Progenitor Marker. **J Invest Dermatol.** 2017 Feb;137(2):280-281. doi: 10.1016/j.jid.2016.10.032.

Richardson R, Mitchell K, Hammond NL, Mollo MR, Kouwenhoven EN, Wyatt ND, Donaldson IJ, Zeef L, Burgis T, Blance R, van Heeringen SJ, Stunnenberg HG, Zhou H, Missero C., Romano RA, Sinha S, Dixon MJ, Dixon J. p63 exerts spatio-temporal control of

palatal epithelial cell fate to prevent cleft palate. **PLoS Genet.** 2017 13(6):e1006828. doi: 10.1371/journal.pgen.1006828.

Russo C, Osterburg C, Sirico A, Antonini D, Ambrosio R, Würz JM, Rinnenthal J, Ferniani M, Kehrloesser S, Schäfer B, Güntert P, Sinha S, Dötsch V, Missero C. Protein aggregation of the p63 transcription factor underlies severe skin fragility in AEC syndrome. **Proc Natl Acad Sci U S A.** 2018 115(5):E906-E915. doi: 10.1073/pnas.1713773115.

Choo MK, Kraft S, Missero C, Park JM. The protein kinase p38α destabilizes p63 to limit epidermal stem cell frequency and tumorigenic potential. **Sci Signal.** 2018 Oct 9;11(551). pii: eaa0727. doi: 10.1126/scisignal.aau0727.

Mollo MR, Cirillo L, Russo C, Antonini D, Missero C. Functional and Mechanistic Insights into the Pathogenesis of P63-Associated Disorders. **J Investig Dermatol Symp Proc.** 2018 Dec;19(2):S98-S100. doi: 10.1016/j.jisp.2018.10.004.

Sol S, Antonini D, Missero C. Isolation and Enrichment of Newborn and Adult Skin Stem Cells of the Interfollicular Epidermis. **Methods Mol Biol.** 2019;1879:119-132. doi: 10.1007/7651_2018_131.

Sirica R, Buonaiuto M, Petrella V, Sticco L, Tramontano D, Antonini D, Missero C, Guardiola O, Andolfi G, Kumar H, Ayub Q, Xue Y, Tyler-Smith C, Salvemini M, D'Angelo G, Colonna V. Positive selection in Europeans and East-Asians at the ABCA12 gene. **Sci Rep.** 2019 Mar 19;9(1):4843. doi: 10.1038/s41598-019-40360-9.

Duchatelet S, Russo C, Osterburg C, Mallet S, Bole-Feysot C, Nitschké P, Richard MA, Dötsch V, Missero C, Nassif A, Hovnanian A. A TP63 Mutation Causes Prominent Alopecia with Mild Ectodermal Dysplasia. **J Invest Dermatol.** 2019 Nov 1. pii: S0022-202X(19)33376-7. doi: 10.1016/j.jid.2019.06.154.

Miro C, Di Cicco E, Ambrosio R, Mancino G, Di Girolamo D, Cicatiello AG, Sagliocchi S, Nappi A, De Stefano MA, Luongo C, Antonini D, Visconte F, Varricchio S, Ilardi G, Del Vecchio L, Staibano S, Boelen A, Blanpain C, Missero C, Salvatore D, Dentice M. Thyroid hormone induces progression and invasiveness of squamous cell carcinomas by promoting a ZEB-1/E-cadherin switch. **Nat Commun.** 2019 Nov 27;10(1):5410. doi: 10.1038/s41467-019-13140-2.

Aberdam E, Roux LN, Secrétan PH, Boralevi F, Schlatter J, Morice-Picard F, Sol S, Bodemer C, Missero C, Cisternino S, Aberdam D, Hadj-Rabia S. Improvement of epidermal covering on AEC patients with severe skin erosions by PRIMA-1(MET)/APR-246. **Cell Death Dis.** 2020 Jan 16;11(1):30. doi:10.1038/s41419-020-2223-8.

Caprio C, Varricchio S, Bilio M, Feo F, Ferrentino R, Russo D, Staibano S, Alfano D, Missero C, Ilardi G, Baldini A. TBX1 and Basal Cell Carcinoma: Expression and Interactions with Gli2 and Dvl2 Signaling. **Int J Mol Sci.** 2020 Jan 17;21(2).

Osterburg C, Osterburg S, Zhou H, Missero C, Dötsch V. Isoform-Specific Roles of Mutant p63 in Human Diseases. **Cancers** (Basel). 2021 Jan 31;13(3):536. doi: 10.3390/cancers13030536. Review.

Caterino M, Gelzo M, Sol S, Fedele R, Annunziata A, Calabrese C, Fiorentino G, D'Abbraccio M, Dell'Isola C, Fusco FM, Parrella R, Fabbrocini G, Gentile I, Andolfo I, Capasso M, Costanzo M, Daniele A, Marchese E, Polito R, Russo R, Missero C, Ruoppolo M, Castaldo G. Dysregulation of lipid metabolism and pathological inflammation in patients with COVID-19. **Sci Rep.** 2021 Feb 3;11(1):2941. doi: 10.1038/s41598-021-82426-7.

Dotto GP, Missero C. Flash forward genetics: new twists in transcription across evolutionary boundaries. **EMBO Rep.** 2021 Feb 8:e52152. doi: 10.15252/embr.202052152.

Kurinna S, Seltmann K, Bachmann AL, Schwendimann A, Thiagarajan L, Hennig P, Beer HD, Mollo MR, Missero C, Werner S. Interaction of the NRF2 and p63 transcription factors promotes keratinocyte proliferation in the epidermis. **Nucleic Acids Res.** 2021 Mar 25:gkab167. doi: 10.1093/nar/gkab167.