### **CURRICULUM VITAE**

Claudio Scafoglio, MD PhD

February 2015

**WORK ADDRESS:** David Geffen School of Medicine

Department of Molecular and Medical Pharmacology

B2-034 CHS

University of California, Los Angeles 90095

CScafoglio@mednet.ucla.edu

Tel. 310-825-4530

Cell phone 619-602-3489

**EDUCATION** 

November 2009: Step 1 and Step 2CK of the United States Medical Licensing

Examination

Dec 2006: Ph.D. degree

2002-2006: Ph.D. Program in 'Medical and Surgical Oncology and Clinical

Immunology', Seconda Università degli Studi di Napoli

July 2002: M.D. degree (summa cum laude)

1996-2002: Medical School, Seconda Università degli Studi di Napoli

# **AWARDS AND HONORS**

Scholars in Oncologic Molecular Imaging (SOMI) Fellowship, 2012-2015

Howard Hughes Fellow, 2007

American Italian Cancer Foundation Fellowship 2007

European Scientific Foundation Travel Fellowship for the Workshop on Applied Functional Genomics, Aarhus, Denmark, 2004

### TEACHING AND MENTORING EXPERIENCE

Daily mentoring of undergraduate and graduate students in Dr. Barrio's and Dr. Wright's labs (2012 to present).

Mentoring of underserved undergraduate students in the UCLA Academic Advancement Program (Director: Dr. Charles Alexander) (June 2014 to present)

Grand Award Judge, Intel International Science and Engineering Fair (Los Angeles, 2014)

Mentoring of underserved high-school students in the UCSD Hughes Scholar Program (2008)

Instructor, Hormone Responsive Breast Cancer Genomics Network Course, Genoa, Italy, 2004

# **RESEARCH EXPERIENCE**

Mar 2012 to present: Scholars in Oncologic Molecular Imaging

University of California, Los Angeles David Geffen School of Medicine

Department of Molecular and Medical Pharmacology

Mentors: Prof. Jorge R. Barrio

Prof. Ernest M. Wright

Mar 2013 to present: Visiting Assistant Researcher Mar 2012 to Feb 2013: Post-doctoral Fellow

Jan 2007 to Jan 2012: **Post-doctoral fellow** 

Department of Medicine

University of California, San Diego

Supervisor: Prof. Michael Geoff Rosenfeld

Aug 2007 to Jul 2008: American-Italian Cancer Foundation Fellow June 2007 to July 2007: Howard Hughes Medical Institute Fellow

Mar 2005 to Nov 2006: Visiting PhD student

Department of Medicine

University of California, San Diego

Supervisor: Prof. Michael Geoff Rosenfeld

Nov 2002 to Nov 2006: **PhD student** 

Department of General Pathology

Medical School, Second University of Naples (Italy)

Supervisor: Prof. Alessandro Weisz

Oct 1999 – July 2002: Research Student

Department of General Pathology

Medical School, Second University of Naples (Italy)

### **RESEARCH INTERESTS**

- 1) Study of glucose metabolism in cancer cells, with diagnostic and therapeutic implications; investigation of the biological role of Na<sup>+</sup>-Glucose transporters (SGLTs) in pancreatic and prostatic adenocarcinomas, with particular focus on their role in cancer metabolism and cell survival and their regulation by growth factors;
- 2) Study of the role of Sodium-Glucose transporters in the brain: expression, function and implication in brain physiology and neurodegenerative diseases;
- 3) Regulation of the switch between cell survival and apoptosis after DNA damage; role of transcriptional repression by the corepressor SMRT in the apoptotic switch; role of the oscillations in Checkpoint kinase 2 activation in the modulation of cellular responses to DNA damage;
- 4) Study of the molecular events regulating the N-CoR corepressor complex dismissal from gene promoters, required for gene activation; analysis of the mechanisms of gene regulation by transcription factors in pituitary development;
- 5) Regulation of splicing by estrogen receptors in breast cancer; estrogen- and antiestrogen-responsive gene expression profiling in hormone-responsive human breast cancer; study of the molecular mechanisms of cyclin D1 promoter regulation by estrogen receptors.

# **AREAS OF EXPERTISE**

Student supervision: Experience in mentoring and supervising graduate, undergraduate and high

school students; special interest and passion for mentoring students from

underserved communities

Molecular biology: DNA and RNA extraction and analysis; PCR, Cloning;

RT-PCR, cDNA microarrays;

protein extraction, purification and analysis; Western blot, immunoprecipitation;

Protein kinase assays

Cell Biology: Cell culture and transfection; siRNA technology;

Immunocytochemistry, immunofluorescence

FACS analysis; Apoptosis assays (TUNEL, Annexin V, caspases assays)

Physiology: In vitro uptake assays in tissue slices (300 µm) of radioactive glucose analogs and

autoradiography to measure glucose transport into the cells;

Re-slicing of the uptake slices into 10-µm section for morphologic analysis

Pathology: Handling, fixing, freezing tissues;

Slicing tissues with vibratome and microtome; Basic stainings (Hematoxylyn-Eosin, cresyl violet);

Immunohistochemistry

Pharmacology: Biodistrtibution/pharmacokinetic studies with radiolabeled tracers;

Molecular Imaging (MicroPET/CT and data analysis)

Preclinical therapeutic trials

Animal models: Establishment and maintenance of tumor xenografts in immunodeficient mice;

Mouse and rat handling and basic procedures (s.c., i.v., i.p. injections, oral

gavage, intracardiac blood collection); Mouse and rat tail vein injection;

Terminal surgery in the rat (carotid artery cannulation, intracarotid infusion)

Bioinformatics: Basic database searches (UCSC Genome Browser; Gene Expression Omnibus;

Ensembl; GeneCards; Expasy, and similar databases); Microarray data analysis; large database management

### **PUBLICATIONS**

### \* Shared first authorship

<u>Scafoglio, C.</u>, Hirayama, B., Liu, J., Kepe, V., Barrio, J.R., Wright, E.M. Functional Expression of Sodium Glucose Transporters in Human Pancreatic and Prostatic Cancers. *PNAS. Manuscript in preparation*.

Dago, D.N.\*, <u>Scafoglio, C.\*</u>, Rinaldi, A., Santamaria, G., Giurato, G., Nassa, G., Tarallo, R., Rizzo, F., Ravo, M. and Weisz, A. Estrogen Receptor Beta Impacts Alternative Splicing Induced by Estrogen in Hormone-responsive Breast Cancer Cells. *Submitted to BMC Genomics*.

<u>Scafoglio, C.</u>, Molka, M., Zhou, H., Perissi, V., Rosenfeld, M.G. The Co-repressor SMRT Delays DNA Damage-Induced Caspase Activation by Repressing Pro-Apoptotic Genes and Modulating the Dynamics of Checkpoint Kinase 2 Activation. *PLoS ONE*. 2013;8(5):e59986.

Perissi, V., <u>Scafoglio, C.</u>, Zhang, J., Ohgi, K.A., Rose, D.W., Glass, C.K., Rosenfeld, M.G. TBL1 and TBLR1 phosphorylation on regulated gene promoters overcomes dual CtBP and NCoR/SMRT transcriptional repression checkpoints. Mol Cell. 2008;29(6):755-66

- Sismondi, P., Biglia, N., Ponzone, R., Fuso, L., <u>Scafoglio, C.</u>, Cicatiello, L., Ravo, M., Weisz, A., Cimino, D., Altobelli, G., Friard, O., De Bortoli, M. Influence of estrogens and antiestrogens on the expression of selected hormone-responsive genes. Maturitas. 2007;57(1):50-5.
- Olson, L., Tollkuhn, J., <u>Scafoglio, C.</u>, Krones, A., Zhang, J., Ohgi, K., Wu, W., Taketo, M., Kemler, R., Grosschedl, R. Homeodomain-mediated beta-catenin-dependent switching events dictate cell-lineage determination. Cell 2006;125:593-605.
- Scafoglio, C., Ambrosino, C., Cicatiello, L., Altucci, L., Ardovino, M., Bontempo, P., Medici, N., Molinari, A.M., Nebbioso, A., Facchiano, A., Calogero, R., Elkon, R., Menini, N., Sismondi, P., De Bortoli, M., Weisz, A. Comparative gene expression profiling reveals partially overlapping but distinct genomic actions of different antiestrogens in human breast cancer cells. J Cell Biochem. 2006; 98:1163-1184.
- Ambrosino, C., Iwata, T., <u>Scafoglio, C.</u>, Mallardo, M., Klein, R., Nebreda, A.R. TEF-1 and C/EBPbeta are major p38alpha MAP kinase-regulated transcription factors in proliferating cardiomyocytes. Biochem J. 2006; 396:163-172.
- <u>Scafoglio, C.</u> and Weisz, A. Review of "The inhibitor of cyclin-dependent kinase 4a/alternative reading frame (INK4a/ARF) locus encoded proteins p16(INK4a) and p19(ARF) repress cyclin D1 transcription through distinct cis elements". Breast Cancer Online (www.bco.org). 2005; Vol 8, issue 1.
- Ambrosino, C., Cicatiello, L., **Scafoglio, C.**, Altucci, L., Weisz, A. A Combinatorial Approach to Gene Expression Analysis: DNA Microarrays. In: Combinatorial Chemistry and Technology, Principles, Methods and Applications, 2nd ed. (Eds. Miertus, S., Fassina, G.), Marcel Dekker, New York. 2005. pp. 539-565.
- Cicatiello, L., Addeo, R., Sasso, A.R., Altucci, L., Belsito Petrizzi, V., Borgo, R., Cancemi, M., Caporali, S., Caristi, S., **Scafoglio, C.**, Teti, D., Bresciani, F., Perillo, B., Weisz, A. Estrogen and progesterone promote persistent CCND1 gene activation during G1 by inducing transcriptional de-repression via c-Jun/c-Fos/ER(PR) complex assembly to a distal regulatory element and recruitment of cyclin D1 to its own gene promoter. Mol Cell Biol. 2004; 24: 7260-7274.
- Weisz, A., Basile, W., <u>Scafoglio, C.</u>, Altucci, L., Bresciani, F., Facchiano, A., Sismondi, P., Cicatiello, L., De Bortoli, M. Molecular identification of ERalpha-positive breast cancer cells by the expression profile of an intrinsic set of hormone regulated genes. J Cell Physiol. 2004; 200:440-450.
- Cicatiello, L., <u>Scafoglio, C.</u>, Altucci, L., Cancemi, M., Natoli, G., Facchiano, A., Iazzetti, G., Calogero, R., Biglia, N., De, Bortoli, M., Sfiligoi, C., Sismondi, P., Bresciani, F., Weisz, A. A Genomic View of Estrogen Actions in Human Breast Cancer Cells by Expression Profiling of the Hormone Responsive Transcriptome, J Mol Endocrinol. 2004: 32; 719-775.
- Sorbello, V., Fuso, L., Sfiligoi, C., <u>Scafoglio, C.</u>, Ponzone, R., Biglia, N., Weisz, A., Sismondi, P., De Bortoli, M. Quantitative real-time RT-PCR analysis of eight novel estrogen-regulated genes in breast cancer. Int J Biol Markers. 2003;18(2):123-9.
- Imai, M., Altucci, L., Bresciani, F., Cancemi, M., Caporali, S., Cicatiello, L., Matarese, F., Natoli, G., <u>Scafoglio, C.</u>, Weisz, A. Estrogen actions in hormone-responsive cancer cells. J Jap Assoc Gynecologic Oncol. 2002; 20: 142-60.