# Sara Casado Zapico, MSc., Ph.D.

Instructor/Facility Manager Research Collaborator Department of Chemistry and Biochemistry Dpt. Anthropology, NMNH, MRC 112 International Forensic Research Institute **Smithsonian Institution** Modesto A. Maidique Campus, CP 323 10th and Constitution Ave, NW 11200 SW 8 St. PO Box 37012 Miami, FL, 33199 Washington, DC 20560 scasadoz@fiu.edu; saiczapico@gmail.com Casado-ZapicoS@si.edu **EDUCATION** Ph.D. **Biological Sciences and Biochemistry** March 2012 International Program, cum laude Winner of the PhD extraordinary Award Institute for Cancer Research of Principado de Asturias Oviedo University, Spain **Advances in Forensic Odontology** October 2011 Sp. Granada University, Spain MSc. **Forensic Anthropology and Genetics** March 2011 Granada University, Spain MSc. **Biological Sciences and Biochemistry** June 2008 Oviedo University, Spain B.S. **Biochemistry July 2006** Oviedo University, Spain February 2004 MSc. **Education Degree Specialized Sciences** Educational Sciences Institute Oviedo University, Spain B.S. June 2003 **Biology** Specialized Sanitary and Fundamental Biology Oviedo University, Spain **HONORS AND AWARDS Finalist Vidocq Award** November 2015 Spanish Society of Criminology and Forensic Sciences PhD extraordinary Award 2012 January 2014 Oviedo University **Student Scholarship Competition Award** February 2013 American Academy of Forensic Sciences Peter Buck Award Postdoctoral Fellowship June 2012-June 2014 Smithsonian National Museum of Natural History **Research Fellowship** Jan 2008-Dec 2011 Spanish National Institute of Health **Research Fellowship** June 2007-Oct 2007 FICYT, Principado de Asturias Research Agency **Research Fellowship** Oct 2006-Nov 2006 Spanish National Institute of Health

## **WORK EXPERIENCE**

Visiting Scientist January 2017

Forensic Anthropology

The Office of Chief Medical Examiner-City of New York (OCME-NYC)

Associate May 2016-May 2017

Forensic Unit

International Committee of the Red Cross, Geneva, Switzerland

Visiting Researcher November 2015

**Anthropology Department** 

American Museum of Natural History, New York

*Topic:* Feasibility of the use of third molar for age-at-death estimation and sex determination in North American and Latin American populations.

Funding: AMNH

Visiting Researcher Oct 2014-Dec 2014

Department of Forensic Medicine

KU Leuven, Catholic University of Leuven, Belgium

Advisor: Prof. Dr. Ronny Decorte

Topic: Ancestry determination by mtDNA haplogroups and SNPs

Funding: Private funds

Visiting Researcher June 2014-July 2014

Hirtzel Human Anatomy and Forensic Anthropology Laboratory Mercyhurst Archaeological Institute (MAI), Erie, Pennsylvania

Funding: Mercyhurst University

Peter Buck Postdoctoral Fellow June 2012-June 2014

**Anthropology Department** 

Smithsonian National Museum of Natural History

Advisor: Douglas H. Ubelaker, Ph.D.

*Topic*: Age estimation by measurement of oxidative stress in teeth.

Researcher Jan 2012-May 2012

Morphology and Cellular Biology Department

Oviedo University, Spain

*Funding:* FICYT (Principado de Asturias Research Agency)

Research Fellow Jan 2008-Dec 2011

Institute for Cancer Research of Principado de Asturias

Oviedo University, Spain

Advisor: Isaac Antolín González, Ph.D.

*Topic:* Cytotoxic effect of melatonin in haematological malignancies.

Funding: Spanish National Institute of Health

**Graduate Research Assistant**June 2010-Dec 2010

James Ewing Laboratory of Developmental Hematopoiesis Memorial Sloan-Kettering Institute for Cancer Research, NY

Advisor: Malcolm A.S. Moore, D. Phil.

Topic: In vitro and in vivo studies on leukemia treatment.

Funding: Spanish National Institute of Health

Researcher Nov 2007-Dec 2007

Morphology and Cellular Biology Department

Oviedo University, Spain

Funding: FICYT (Principado de Asturias Research Agency)

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## **RESEARCH EXPERIENCE (continued)**

Research Fellow June 2007-Oct 2007

Morphology and Cellular Biology Department

Oviedo University, Spain

Advisor: Isaac Antolín González, Ph.D.

*Topic:* Synergistic effect between melatonin and chemotherapeutic drugs.

*Funding:* FICYT (Principado de Asturias Research Agency)

Research Fellow Oct 2006-Nov 2006

Morphology and Cellular Biology Department

Oviedo University, Spain

Advisor: Isaac Antolín González, Ph.D.

*Topic:* Synergistic effect between melatonin and chemotherapeutic drugs.

Funding: Spanish National Institute of Health

**Undergraduate Researcher** 

March 2006-June 2006

Biochemistry Department Oviedo University, Spain

Advisor: Pedro Domínguez Luengo, Ph.D.

*Topic:* Gs $\alpha$  signaling pathways.

Intern July 2003-Sept 2003

Biochemistry, Hematology and Microbiology Departments Cabueñes Hospital, Gijón, Spain

**Intern** Feb 2003-Jun 2003

Microbiology Department Oviedo University, Spain

## IMPLICATIONS IN FUNDING RESEARCH PROJECTS

Feasibility of the use of third molar for age-at-death estimation and sex determination in North American and Latin American populations.

November 2015

Organism: Collections Study Grant-American Museum of Natural History, NYC

Role: PI

Age estimation by measurement of oxidative stress in teeth from different populations. Comparison with classical methods.

June 2012-June 2014

Organism: Smithsonian Institution, Peter Buck Award

Role: Co-PI, Postdoctoral Fellow

## Study of cell death induced by melatonin in human glioma stem cells

January 2011-May 2012

Organism: Carlos III National Health Institute, Spain

Role: Member of the group

# **Cooperative Investigation Cancer Network (RTICC)**

January 2008-December 2010

Organism: Carlos III National Health Institute, Spain

Role: Member of the group

## **IMPLICATIONS IN FUNDING RESEARCH PROJECTS (continued)**

# Mechanism implicated in cytotoxicity of melatonin in specific types of tumoral cells: ES/PNET tumors and related lymphoid tumors

October 2007-October 2010

Organism: Spanish Science and Education State Department (MCYT)

Role: Fellow

# Intracellular pathways implicated in melatonin-induced apoptosis in neuroectodermic tumors. *In vivo* and *in vitro* studies

January 2007-December 2009

Organism: Carlos III National Health Institute, Spain

Role: Fellow

# Implication of the redox control systems in the mechanism of resistance to apoptosis on prostate cancer

November 2007-December 2007

Organism: Carlos III National Health Institute, Spain

Role: Member of the group

## Oncostatic effects of melatonin in central nervous system tumors. In vivo and in vitro studies

October 2006-November 2006

Organism: Carlos III National Health Institute, Spain

Role: Fellow

## **PUBLICATIONS**

## **Forthcoming Publications**

Stone-Gordon R, Padalkar R, Ubelaker DH, **C. Zapico S**. "Comparison of classical anthropological formulas for age-at-death estimation in multiradicular teeth from Spanish populations". Under review.

De Alcaraz-Fossoul J, Barrot-Feixat C, **C. Zapico S**, Carreras-Marin C, Roberts K, Gené Manuel. "Ridge width correlations between inked prints and powdered latent fingerprints". Under review.

Adserias J, Maijanen H, **C. Zapico S**, Steadman. "Potential use of five cranial traits for sex assessment in forensic cases". Under Review.

#### **Publications**

Adserias-Garriga J, Nogué-Navarro L, **Zapico SC**, Ubelaker DH. "Setting the light conditions for measuring root transparency for age-at-death estimation methods". *Int J Legal Med. 2017 Mach 30*.

De Alcaraz-Fossoul J, Barrot-Feixat C, Carreras-Marin C, Tasker J, C. Zapico S, Gené Manuel. "Latent Fingermark aging patterns (Part III): Discontinuity index as one indicator of degradation". *J Forensic Sci. 2017 Feb 1*.

Adserias-Garriga J, Ubelaker DH. **C. Zapico S**. "Evaluation of macroscopic changes and the efficiency of DNA profiling from burnt teeth". *Sci Justice.* 2016 Dec;56(6):437-442.

**C. Zapico S**, Menéndez ST. "Human mitochondrial and nuclear DNA isolation from food bite marks". *Arch Oral Biol. 2016 Jun 8; 70:67-72* 

**C. Zapico S**, Ubelaker DH. "Relationship between mtDNA mutations and aging. Estimation of age-at-death". *J Gerontol A Biol Sci Med Sci. 2015 Aug 18. pii: glv115.* 

Bekaert B, Kalamandua A, **C. Zapico S**, Van der Voorde W, Decorte R. "A selective set of DNA-methylation markers for age determination from blood and teeth samples". *Epigenetics. 2015 Aug* 17:1-9.

## **Publications** (continued)

**C. Zapico S**, Menéndez ST, Núñez P. "Cell death proteins as markers of early post-mortem interval". *Cell Mol Life Sci. 2014 Aug;71(15):2957-62. Epub ahead of print. Cell Mol Life Sci. 2013 Dec 3.* 

**Zapico SC**, Ubelaker DH. "Sex determination from dentin and pulp in medicolegal context". *J Am Dent Assoc. 2013 Dec;144(12):1379-85.* 

**Zapico SC**, Ubelaker DH. "mtDNA mutations and their role in aging, diseases and forensic sciences". *Aging Dis. 2013 Oct 3;4(6):364-380.* Invited Review.

Rodriguez C, Martín V, Herrera F, García-Santos G, Rodriguez-Blanco J, **Casado-Zapico S**, Sánchez-Sánchez AM, Suárez S, Puente-Moncada N, Anítua MJ, Antolín I. "Mechanisms involved in the proapoptotic effect of melatonin in cancer cells." *Int J Mol Sci. 2013 Mar 25;14(4):6597-613.* 

**C. Zapico S**, Ubelaker DH. "Applications of physiological bases of ageing to forensic sciences. Estimation of age at death". *Ageing Res Rev. 2013 Mar;12(2):605-17.* 

Rodríguez-Blanco J, Martín V, García-Santos G, Herrera F, **Casado-Zapico S**, Antolín I, Rodríguez C. "Cooperative action of JNK and Akt/mTOR in 1-methyl-4-phenylpiridinium-induced autophagy of neural PC12 cells". *J Neurosci Res. 2012 Sep;90(9):1850-60.* 

García-Santos G, Martín V, Rodríguez-Blanco J, Herrera F, **Casado-Zapico S**, Sánchez-Sánchez AM, Antolín I, Rodríguez C. "Fas/Fas ligand regulation mediates cell death in human Ewing's sarcoma cells treated with melatonin". *Br J Cancer*. 2012 Mar 27;106(7):1288-96.

Sánchez-Sánchez AM, Martín V, García-Santos G, Rodríguez-Blanco J, **Casado-Zapico S**, Suárez-Garnacho S, Antolín I, Rodriguez C. "Intracellular redox state as determinant for melatonin antiproliferative vs cytotoxic effects in cancer cells". *Free Radic Res. 2011 Nov;45(11-12):1333-41.* 

**Casado-Zapico S**, Martín V, García-Santos G, Rodríguez-Blanco J, Sánchez-Sánchez AM, Luño E, Suárez C, García-Pedrero JM, Tirados-Menéndez S, Antolín I, Rodríguez C. "Regulation of death receptors and their ligands expression by melatonin in both cell lines and patient leukemia cells". *J. Pineal Res.* 50(3):345-55, 2011.

Tirados-Menéndez S, Rodrigo JP, Allonca E, García-Carracedo D, Álvarez-Alija G, **Casado-Zapico S**, Fresno MF, Rodríguez C, Suárez C, García-Pedrero JM. "Expression and clinical significance of the Kv3.4 potassium channel subunit in the development and progression of head and neck squamous cell carcinomas" *J. Pathol. 221(4):402-10, 2010*.

**Casado-Zapico S**, Rodríguez-Blanco J, García-Santos G, Martín V, Sánchez-Sánchez AM, Antolín I, Rodríguez C. "Synergistic antitumor effect of melatonin with several chemotherapeutic drugs on human Ewing sarcoma cancer cells: potentiation of the extrinsic apoptotic pathway" *J. Pineal Res.* 48:72-80, 2010.

Martín V, García-Santos G, Rodríguez-Blanco J, **Casado-Zapico S**, Sánchez-Sánchez A, Antolín I, Medina A, Rodríguez C. "Melatonin sensitizes human malignant glioma cells against TRAIL-induced cell death" *Cancer Letters.* 287:216-23. 2010.

### **BOOK CONTRIBUTIONS**

- **C. Zapico S**, **editor**. "Mechanisms linking aging, diseases and biological age estimation". Book in preparation for CRC Press. **Author of seven chapters**: https://www.crcpress.com/Mechanisms-Linking-Aging-Diseases-and-Biological-Age-Estimation/Zapico/p/book/9781498709699
- **C. Zapico S**, Adserias-Garriga J. "New approaches in Postmortem Interval (PMI) estimation". Chapter in the book *"Forensic Science: New Developments, Perspectives and Advanced Technologies"* by NOVA Science Publishers, Inc.

#### FORENSIC CASES COLLABORATIONS

**Civil Guard** February 2016- Present

Role: External advisor in forensic cases

Mossos d'esquadra July 2014-Present

Scientific Police of Cataluña-Dr. Joe Adserias Garriga

### Institute of Legal Medicine of Cataluña

Dec 2013-Present

Section Girona

Role: Collaborator in forensic anthropology and odontology cases for age estimation.

## PRESENTATIONS AND ABSTRACTS

# American Academy of Forensic Sciences (AAFS) 69th Annual Meeting-Oral Communication

New Orleans, Louisiana, February 2017

"From oxidative stress to proteins: postmortem interval estimation based on biochemical parameters"

C. Zapico S, Nuñez P, Villaronga MA, Menéndez ST, Ubelaker DH, García-Pedrero J

# American Academy of Forensic Sciences (AAFS) 69th Annual Meeting-Oral Communication

New Orleans, Louisiana, February 2017

"Morphometrics of the aging process of latent fingerprints"

De Alcaraz-Fossoul J, Barrot C, Mestres C, Balaciart Muntaner A, Gené M, Carreras Marin C, Tasker J, Roberts KA, C. Zapico S, McGarr L, Stow K.

## American Academy of Forensic Sciences (AAFS) 69th Annual Meeting-Poster

New Orleans, Louisiana, February 2017

"The potential use of five cranial traits for sex assessment in Forensic Cases" Adserias J, Maijanen H, **C. Zapico S**, Steadman DW

# American Academy of Forensic Sciences (AAFS) 68th Annual Meeting-Oral Communication

Las Vegas, Nevada, February 2016

"DNA methylation markers as a novel tool for age-at-death estimation in teeth" **C. Zapico S**, Bekaert B, Kamalandua A, Van de Voorde W, Decorte R

## American Academy of Forensic Sciences (AAFS) 68th Annual Meeting-Poster

Las Vegas, Nevada, February 2016

"Forensic Podiatry and Human Identification-the state of this art in European Countries" Martínez-Escauriaza P, **C. Zapico S**, Adserias J

## American Academy of Forensic Sciences (AAFS) 68th Annual Meeting-Oral Communication

Las Vegas, Nevada, February 2016

"Teeth and Fire: Forensic analysis of teeth and dental material exposed to fire" Adserias J, **C. Zapico S**, Cabo LL, Symes SA, Ubelaker DH, Dirkmaat DC

## Forensic Anthropology Society in Europe Symposium-Oral Communication

Montpellier, France, September 2015

"Macroscopic changes and efficiency of human DNA profiling from burnt teeth" Adserias Garriga J, Ubelaker DH, **C. Zapico S** 

## **26**th Congress of the International Society for Forensic Genetics-Oral Communication

Krakow, Poland, September 2015

"A selective set of DNA-methylation markers for age determination from blood and teeth samples" Bekaert B, Kamalandua A, **C. Zapico S**, Van de Voorde W, Decorte R.

## PRESENTATIONS AND ABSTRACTS (continued)

### **Human Identification Solutions-***Poster*

Madrid, Spain, March 2015

"Efficiency of human DNA isolation and short tandem repeat (STR) profiling from burnt teeth"

C. Zapico S, Adserias J, Ubelaker DH

# American Academy of Forensic Sciences (AAFS) 67th Annual Meeting-Oral Communication

Orlando, Florida, February 2015

"Mitochondrial DNA (mtDNA) mutations as a new approach for age-at-death estimation" **C. Zapico S**, Ubelaker DH

## American Academy of Forensic Sciences (AAFS) 67th Annual Meeting-Poster

Orlando, Florida, February 2015

"Efficiency of human DNA isolation and short tandem repeat (STR) profiling from burnt teeth"

C. Zapico S, Adserias I, Ubelaker DH

# **American Society of Human Genetics (ASHG) Annual Meeting-***Poster*

San Diego, California, October 2014

"Learning a Language through Genome Education. Spanish School Experience" **C. Zapico S**. Susana Martínez de Castro.

## George Washington University Research Days 2014-Poster

Washington, DC, April 2014

"Application of Anthropological and Biochemical methodologies for estimation of age and sex"

Padalkar R, Ubelaker DH, C. Zapico S

## American Academy of Forensic Sciences (AAFS) 66th Annual Meeting-Poster

Seattle, Washington, February 2014

"Management of mass disasters in Spain: the March 11<sup>th</sup> Madrid Train Bombing" Adserias J, **C. Zapico S**, Hospital A, Prieto JL

# American Academy of Forensic Sciences (AAFS) 66th Annual Meeting-Oral Communication Seattle, Washington, February 2014

"Comparison of the use of Lamendin variables and aspartic acid racemization to estimate the age-at-death"

C. Zapico S, Ubelaker DH, Moini M

## **American Society of Human Genetics (ASHG) Annual Meeting-***Poster*

Boston, Massachusetts, October 2013

"Relationship between mtDNA mutations and aging. Estimation of age-at-death" **C. Zapico S**. Ubelaker DH

## American Academy of Forensic Sciences (AAFS) 65th Annual Meeting-Poster

Washington, DC, February 2013

"Cell death proteins as markers of early post-mortem interval"

C. Zapico S, Menéndez ST, Núñez P

Winner of the Student Scholarship Competition Award

## American Academy of Forensic Sciences (AAFS) 64th Annual Meeting-Poster

Atlanta, Georgia, February 2012

"Efficiency of Human DNA isolation from food bitemarks"

C. Zapico S, Menéndez ST

## PRESENTATIONS AND ABSTRACTS (continued)

## Spanish Association for Cancer Research (ASEICA) XIII Meeting-Poster

Salamanca, Spain, September 2011

 $"Prooxidant\ activity\ of\ melaton in\ promotes\ cancer\ cell\ cytotoxicity"$ 

Sánchez-Sánchez AM, Martín V, García-Santos G, Casado-Zapico S, Antolín I, Rodríguez C.

## **1st Congress of CEORL-HNS**-Poster

Barcelona, Spain, July 2011

"Expression and clinical significance of the Kv3.4 potassium channel subunit in the development and progression of head and neck squamous cell carcinomas"

Menéndez ST, Rodrigo JP, García-Carracedo D, Allonca E, Álvarez-Alija G, **Casado-Zapico** S, Fresno MF, Rodríguez C, Suárez C, García-Pedrero JM

# ${\bf OncoBio 2010\ International\ Scientific\ Meeting.\ Cancer,\ Stem\ Cells\ and\ Metastasis-\it Poster}$

Salamanca, Spain, 2010

"Expression and clinical significance of the Kv3.4 potassium channel subunit in the development and progression of head and neck squamous cell carcinomas"

Tirados-Menéndez S, Rodrigo JP, García-Carracedo D, Allonca E, Álvarez-Alija G, **Casado-Zapico S**, Fresno MF, Rodríguez C, Suárez C, García-Pedrero JM

## III International Symposium IUOPA: Advances in Molecular Oncology-Poster

Oviedo, Spain, 2010

"Melatonin cytotoxicity in cancer cells"

García-Santos G, Casado-Zapico S, Martín V, Sánchez-Sánchez A, Antolín I, Rodríguez C

## III International Symposium IUOPA: Advances in Molecular Oncology-Poster

Oviedo, Spain, 2010

"Expression and clinical significance of the Kv3.4 potassium channel subunit in the development and progression of head and neck squamous cell carcinomas"

Tirados-Menéndez S, Rodrigo JP, García-Carracedo D, Allonca E, Álvarez-Alija G, **Casado-Zapico S**, Fresno MF, Rodríguez C, Suárez C, García-Pedrero JM

## **Frontiers in Tumour Progression**-Poster

Madrid, Spain, 2010

"Expression and clinical significance of the Kv3.4 potassium channel subunit in the development and progression of head and neck squamous cell carcinomas"

García-Pedrero JM, Tirados-Menéndez S, Rodrigo JP, García-Carracedo D, Allonca E, Álvarez-Alija G, **Casado-Zapico S**, Fresno MF, Rodríguez C, Suárez C

# **Lymphoma and Myeloma 2010. An International Congress on Hematologic Malignancies**-*Poster* New York, New York, October 2010

"Antitumoral Effect of Melatonin in Burkitt Lymphoma Cells"

Casado-Zapico S, Martín V, García-Santos G, Rodríguez-Blanco J, Sánchez-Sánchez AM, Suárez C, García-Pedrero JM, Tirados-Menéndez S, Antolín I, Rodríguez C

# Encuentro científico de jóvenes investigadores de la red temática de investigación cooperativa en cáncer (RTICC)-Poster

Madrid, Spain, October 2010

"Estado redox celular como determinante de los efectos antitumorales de la melatonina" Sánchez A Mª, Martín V, García G, **Casado S**, Antolín I, Rodríguez C

## 

Washington, DC, September 2010

"Antitumoral Effect of Melatonin in Chronic Myeloid Leukemia Cells"

Casado-Zapico S, Martín V, García-Santos G, Rodríguez-Blanco J, Sánchez-Sánchez A, Antolín I, Carmen Rodríguez

## PRESENTATIONS AND ABSTRACTS (continued)

### 21st Meeting of the European Association for Cancer Research-Poster

Oslo, Norway, 2010

"Expression and clinical significance of the Kv3.4 potassium channel subunit in the development and progression of head and neck squamous cell carcinomas"

Tirados-Menéndez S, Rodrigo JP, García-Carracedo D, Allonca E, Álvarez-Alija G, **Casado-Zapico S**, Fresno MF, Rodríguez C, Suárez C, García-Pedrero JM

# **14<sup>th</sup> World Congress on Advances in Oncology. Int. J. Molecular Medicine**-*Oral Communication* Loutraki, Greece, 2009

"The extrinsic apoptotic pathway and melatonin: cytotoxic actions of melatonin in haematological cancer cells"

Rodríguez C, **Casado-Zapico S**, García-Santos G, Martín V, Rodríguez-Blanco J, Sánchez-Sánchez A, Saínz RM, Mayo JC

## I Encuentro de Jóvenes Investigadores de la RTICC-Poster

Salamanca, Spain, 2009

"Synergistic effect between melatonin and chemotherapeutic drugs on Ewing Sarcoma cells"

Casado-Zapico S, García-Santos G, Rodríguez-Blanco J, Martín V, Antolín I, Sánchez-Sánchez A, Rodríguez C

## Spanish Association for Cancer Research (ASEICA) XII Meeting-Poster

Madrid, Spain, 2009

"Antitumoral action of melatonin in haematological malignancies: induction of apoptosis through extrinsic and intrinsic pathway"

Casado-Zapico S, García-Santos G, Rodríguez-Blanco J, Martín V, Antolín I, Sánchez-Sánchez A, Rodríguez C

## **CNIO Special Workshop: Stress Signalling and Cancer**-*Poster*

Madrid, Spain, 2008

"Intracellular pathways mediated melatonin proapoptotic effect on Ewing Sarcoma cells and its synergy with chemotherapeutic drugs"

Casado-Zapico S, García-Santos G, Rodríguez-Blanco J, Antolín I, Martín V, Rodríguez C

# 13<sup>th</sup> World Congress on Advances in Oncology. Int. J. Molecular Medicine-Oral Communication Creta, Greece, 2008

"Melatonin and cancer therapy: current state and future perspectives"
Rodríguez C, García-Santos G, **Casado-Zapico S**, Rodríguez-Blanco J, Martín V, Herrera F,
Saínz RM, Mayo JC and Antolín I

# American Association for Cancer Research (AACR) Annual Meeting-Oral Communication San Diego, California, 2008

"Antitumoral action of melatonin in Ewing Sarcoma cells: possible ews-fli implication" García-Santos G, Rodríguez-Blanco J, Antolín I, Herrera F, Martín V, **Casado-Zapico S**, Toresky JA and Rodríguez C

# 12<sup>th</sup> World Congress on Advances in Oncology and 10<sup>th</sup> International Symposium on Molecular Medicine. Int J Molecular Medicine-*Oral Communication*

Creta, Greece, 2007

"Relationship between oxidative stress and the cell cycle: relevance for several chronic diseases"
Rodríguez C, Rodríguez-Blanco J, Martín V, García-Santos G, Herrera F, Saínz RM, Mayo JC,
Casado S and Antolín I

ACADEMIC, PROFESSIONAL, AND SCHO	OLARLY SOCIETIES AND SERVICES
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International Association of Coroners and Medical Examiners	February 2016-Present
Mutation Research Reviewer	Sept 2014-Present
Journal of Forensic and Legal Medicine Reviewer	June 2014-Present
Experimental and Molecular Pathology Reviewer	May 2014-Present
International Academy of Legal Medicine	March 2014-Present
Forensic Anthropology Society of Europe	March 2014-Present
Españoles Científicos en USA (Spanish Scientists in USA) Founding member, Events coordinator	Sept 2013-Present
Journal of Forensic Dental Sciences Reviewer	June 2013-Present
The American Society of Human Genetics  Trainee	April 2013-Present
Life: the excitement of Biology  Editorial Board	March 2013-Present
American Academy of Forensic Sciences Associate member Physical Anthropology Section	Feb 2011-Present
TEACHING EXPERIENCE	
University of Girona, Spain	October 2013-Present
Adjunct Professor Forensic Anthropology Postgraduate course	
American University	February 2015
Introduction to Osteology-teeth morphology and development	
Mercyhurst University	December 2013
Forensic Taphonomy	
Smithsonian National Museum of Natural History	
Genome. Unlocking life's code  Instructor at the exhibit	June 2013-July 2014
Written in Bone. Forensic Anthropology Lab Instructor at the lab	Sep 2012-July 2013
The New York City Police Museum  Instructor and events organizer	July 2010-Dec 2010
Padre Feijoo High School  Training MSc. Education-Biology classes	Feb 2004-March 2004

#### MENTORING EXPERIENCE

**Christian Thomas**. Undergraduate student at George Washington University. *Volunteer in my project since March 2014*.

**Roma Padalkar.** Undergraduate student at George Washington University. *Intern in my project since February 2014. Winner of Undergraduate Research Enhancement Fund (UREF)* under my supervision.

**Rebecca Stone-Gordon.** Graduate student at American University. *Volunteer in my project since August 2013*.

**Marina Gómez-Lobo.** Technician at the lab I developed my PhD in Spain. *Mentoring from 2009 to 2012.* 

**Ana María Sánchez-Sánchez.** PhD student at the lab I developed my PhD in Spain. *Mentoring from 2008 to 2012.* 

## **INVITED TALKS**

## Q?rius. Google Field Trip Program. Smithsonian Institution

Washington, DC, October 2015

Sex determination in Forensic Anthropology

## Master in Forensic Odontology. KU Leuven

Leuven, Belgium, December 2014

Multidisciplinary forensic approach for identification of human remains

## Spanish School from the Spanish Embassy. Genome Unlocking Life's Code

Washington, DC, May 2013

Human Genetics

## Penn State University Students. National Museum of Natural History Tour

Washington, DC, October 2013 Forensic Anthropology

### Spanish School from the Spanish Embassy. Forensic Anthropology Lab

Washington, DC, March-April 2013

Forensic Anthropology Lab at Natural History Museum

### SUNY Anthropology Students. National Museum of Natural History Tour

Washington, DC, February 2013

Forensic Anthropology and Genetics

### LANGUAGES WRITTEN AND SPOKEN

**Spanish**: mother tongue.

**English**: C1 in European standards. **German**: B1 in European standards.

**Portuguese:** A1 in European standards.

**Russian**: A1 in European standards. **French**: A2 in European standards.

**Dutch**: Basic Level.

# OTHER TECHNICAL TRAINING

Gaining Speed with "Fast GC": A Practitioner's Perspective RTI International-Online Training	July 2016
International Criminal Law Coursera	June 2016
Method Validation for Quantitation and Confirmation of Drugs by LC/MS/MS  RTI International-Online Training	June 2016
Controlled Substances Analysis  RTI International-Online Training	May 2016
Confirmatory Blood Identification by Mass Spectrometry RTI International-Online Training	April 2016
Specimen Validating Testing: The Workplace Experience RTI International-Online Training	March 2016
The AAFS Humanitarian and Human Rights Resource Center 67th AAFS meeting	February 2016
Paleopathology Course Autonomous University of Barcelona. Barcelona, Spain	July 2014
Documentation and Interpretation of the Mass Fatality Scene Mercyhurst University. Erie, Pennsylvania	June 2014
Analysis of Bone Trauma and Pseudo-Trauma in Suspected Violent Deaths Mercyhurst University. Erie, Pennsylvania	June 2014
<b>Applications of Next Generation Sequencing in Forensic DNA Analysis</b> 66th Scientific Meeting of the AAFS	Feb 2014
Human Identification in Mass Fatalities  RTI International and NIJ-Online training	Nov 2013
Introductory Hands-on XRF Seminar National Museum of Natural History, Smithsonian Institution, Washington, DC	Sep 2013
Tools for cell metabolism: Bioluminiscent NAD(P)/NAD(P)H-Glo Assays Promega Platform-Online training	Sep 2013
New directions in Molecular Histology/MS imaging Waters-Biocompare-Online training	Sep 2013
Human Cell line misidentification Promega Platform-Online training	Aug 2013
Reliability and validity of Fire Scene Examination West Virginia University and NIJ Initiative-Online training	July 2013
Everything you did (and didn't) want to know about forensic DNA analysis  West Virginia University and NIJ Initiative-Online training	July 2013
Crime scene: Death Scene checklist  The Evidence Conference-Online training	July 2013
Future Trends in Forensic DNA technology  HID University by Life Technologies. Washington, DC	July 2013
Forensic Taphonomy Forensic Anthropology Center. University of Tennessee, Knoxville, TN, USA	June 2013

# OTHER TECHNICAL TRAINING (continued)

Falling into decay: Postmortem interval and Molecular autopsy. Part II  RTI International and NIJ-Online training	May 2013
Falling into decay: Postmortem interval and Molecular autopsy. Part I  RTI International and NIJ-Online training	Apr 2013
Straight to the bone: Advances in Forensic Anthropology  RTI International and NIJ-Online training	Apr 2013
Radiological explorations. Fractures and common osteological diseases  Logoss platform	Aug 2012
Collecting DNA evidence at property Crime Scenes  DNA Initiative (NIJ)-Online training	Aug 2011
Crime Scene and DNA basics for Forensic Analysts  DNA Initiative (NIJ)-Online training	Aug 2011
DNA extraction and quantitation for Forensic Analysts  DNA Initiative (NIJ)-Online training	Aug 2011
DNA amplification for Forensic Analysts  DNA Initiative (NIJ)-Online training	Aug 2011
<b>Developing a missing persons protocol</b> RTI International and NIJ-Online training	Apr 2011
Fundamentals of LC/MS/MS  RTI International and NIJ-Online training	Dec 2010
AAFS February 2008 Presentations  RTI International and NIJ-Online training	Nov 2010
Expert Testimony Training I on Demand  RTI International and NIJ-Online training	Nov 2010
Forensic Anthropology: Mapping and Exhumation of Clandestine Burials  RTI International and NIJ-Online training	Nov 2010
Forensic Fingerprints analysis basics Forensic Training Network in partnership with NIJ -Online training	Nov 2010
Essential aspects of Forensic DNA Testing Forensic Training Network in partnership with NIJ -Online training	Nov 2010
Molecular Biology and Genomics: new allies of clinical researcher  Ferrer in Code -Online training	Dec 2009
Updating in the approach of Postmenopausic Osteoporosis  Diario Médico Platform -Online training	Apr 2009
Swimming in English. Advanced level Language immersion program state-subsidized. Garaña, Asturias, Spain	Apr 2009
Virtual Workshop of Sistematic Revisions and Metaanalysis E-oncología Platform -Online training	March 2009
Virtual Workshop of Critical Reading of Scientific Articles E-oncología Platform -Online training	March 2009
Handling of lab animals. Category B  Department of Biochemistry and Molecular Biology. Oviedo University, Oviedo, Spain	Oct 2008

# OTHER TECHNICAL TRAINING (continued)

<b>Updating on vaccines</b> Diario Médico Platform -Online training	Oct 2008
<b>Cutaneous Lymphomas</b> Diario Médico Platform -Online training	Feb 2008
<b>Psychological factors in the vital cycle</b> Cátedra Jovellanos, Oviedo University, Gijón, Spain	Jul 2002
Maths and daily life Cátedra Jovellanos, Oviedo University, Gijón, Spain	Jul 2002

#### REFERENCES

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