

## **CURRICULUM VITAE**

**NAME** DIEGO GONZALEZ-HALPHEN

**PLACE OF BIRTH**

**DATE OF BIRTH**

**CITIZENSHIP**

**MARITAL STATUS**

**ADDRESS**

**PERSONAL ADDRESS**

**SCIENTIFIC INDEXES**

**ORCID** 0000-0003-0654-655X

**ResearcherID (Thomson Reuters)** C-2664-2013

**Author ID (Scopus)** 7003307981

**CVU (CONACyT)** 6533

**CITATIONS TO HIS WORK:** 3665  
Author h-index: 26

## RESEARCH INTERESTS

- Structure-function relationships in mitochondrial complexes.
- Biochemical and molecular genetics characterization of the components of oxidative phosphorylation from the algae *Chlamydomonas reinhardtii* and *Polytomella* spp.
- Allotopic expression of mitochondrial genes
- Import of proteins into the colorless plastids of *Polytomella parva*

## PRESENT POSITIONS

- Full Time Researcher "C", Department of Molecular Genetics, Institute of Cellular Physiology, University of Mexico (U.N.A.M.), June 2003 - to date.
- Head, Department of Molecular Genetics, Institute of Cellular Physiology, January 2022 to date.
- Member of the National System of Researchers (SNI, Mexico) Level III

## PREVIOUS POSITIONS

- Professor of Physical Chemistry (19 hours/week) Department of Biophysics, National School of Biological Sciences, National Polytechnic Institute (IPN), México, D.F., February 1978 - July 1989.
- Research Associate (Postdoctoral Fellow), Institute of Molecular Biology, University of Oregon, USA, August 1985 - February 1988.
- Research Associate "C", Department of Bioenergetics, Institute of Cellular Physiology, University of Mexico (UNAM), March 1988 - February 1991.
- Professor "A" of Cellular Biology, (6 hours/week), Graduate Studies in Biomedical Research, University of Mexico (UNAM), March 1989 - September 1992.
- Full Time Researcher "A", Department of Bioenergetics, Institute of Cellular Physiology, University of Mexico (UNAM), March 1991-January 1996.
- Visiting Scholar, University of California at Riverside (Dr. Dmitri A. Maslov lab. Department of Biology), August 2000 – July 2001.
- Full Time Researcher "B", Department of Molecular Genetics, Institute of Cellular Physiology, University of Mexico (UNAM), February 1996 – July 2003.
- Professor "B" of Cellular Biology, (8 hours/week), Graduate Studies in Biomedical Research, University of Mexico (UNAM), September 1992 – January 2022.

- Head, Department of Molecular Genetics, Institute of Cellular Physiology, November 2001-December 2009.

### **UNIVERSITY STUDIES**

Biochemical Engineer, National School of Biological Sciences, National Polytechnic Institute, Mexico, 1973-1978.

Undergraduate Student, Center of Research and Advanced Studies, National Polytechnic Institute (CINVESTAV del I.P.N.) Mexico, 1973-1978.

### **GRADUATE STUDIES**

Master'ss in sciences (Biochemistry) Center of Research and Advanced Studies, National Polytechnic Institute (CINVESTAV del I.P.N.) Mexico, 1978-1982 (Title of Thesis: Isolation, Characterization and Reconstitution of the P700 from *Spirulina maxima*, Director of Thesis: Dr. Carlos Gómez-Lojero).

Ph.D. (Biochemistry) Center of Research and Advanced Studies, National Polytechnic Institute (CINVESTAV del I.P.N.) Mexico, 1982-1985 (Title of Thesis: The cytochrome b-f complex from the cyanobacterium *Spirulina maxima*, Director of Thesis: Dr. Carlos Gómez-Lojero).

### **POSTDOCTORAL TRAINING**

Institute of Molecular Biology, University of Oregon, Eugene, OR, U.S.A. (Laboratory of Dr. Roderick A. Capaldi) 1985-1988.

### **LANGUAGES**

Spanish (Mother language)  
English (Conversation, Writing and Translation)  
French (Conversation and Translation)  
Italian (Conversation and Translation)

### **TEACHING (LAST 10 YEARS)**

- 1) Graduate Course "Mitochondrial Physiology", Institute of Biotechnology, UNAM, Feb 7, 2012.
- 2) XLVI Course on Human Genetics, National Medical Center, Mexico, June 30-July 4, 2014.
- 3) Undergraduate Course "Applications of Genomics", Bachelors in Genomic Sciences, Center of Genomic Sciences, UNAM, Sept 14, 2016.
- 4) Graduate Course of Advanced Biochemistry, National School of Biological Sciences, IPN, March 15, 2019.

- 5) Graduate Course on Membrane Proteins, Institute of Neurobiology, UNAM, May 9, 2019.
- 6) Graduate Course "Creators of Modern Science", Institute of Neurobiology, UNAM, Oct 4, 2016; Sept 5, 2017; Sept 4, 2018; Sept 2, 2019; Oct 13, 2020; Sept 2021 and Oct 4, 2022.
- 7) Graduate Course Molecular Biology of the eukaryotic cell, Institute of Cellular Physiology, Feb-May 2022.
- 8) Graduate Course Structural Biology of Cellular Membranes, Institute of Cellular Physiology, UNAM, Feb-June 2009; Feb-June 2010; Aug-Nov 2010; Feb-June 2011; Feb-May 2012; Aug-Nov, 2012; Feb-May, 2013; Aug-Nov, 2013; Feb-May, 2014; Aug-Nov, 2014; Feb-May, 2015; Aug-Nov, 2015; Feb-May 2016; Aug-Nov, 2016; Feb-May 2017; Aug-Nov, 2017; Feb-May 2018; Aug-Nov, 2018; Feb-May 2019; Sept 2019-January 2021; Feb-May, 2020; Aug-Nov 2020; Jan-May, 2021; Aug-Nov, 2021; Jan-May, 2022 and Aug-Nov, 2022.

### **THESIS MADE UNDER HIS DIRECTION**

#### **Bachelor's Thesis**

- 1) Ileana Silva Cárdenas, Biology Bachelor Thesis, School of Sciences, UNAM, Dic 4, 1991.
- 2) Emma Berta Gutiérrez Cirlos Madrid, Biology Bachelor Thesis, School of Sciences, UNAM, Jan 17, 1992.
- 3) Berenice García Ponce de León, Biology Bachelor Thesis, School of Sciences, UNAM, Oct 19, 1992.
- 4) Rita Rojas Huidobro, Biology Bachelor Thesis, School of Biology, Autonomous University of Puebla, Dic 1, 1995.
- 5) Reyes Prieto Adrián, Biology Bachelor Thesis, School of Sciences, UNAM, Jan 30, 1997.
- 6) Funes Argüello Soledad, Biology Bachelor Thesis, School of Sciences, UNAM, Feb 20, 1998.
- 7) Alexa Villavicencio Queijeiro, Bachelor on Basic Biomedical Research, School of Medicine, UNAM, August 28, 2008.
- 8) Héctor Vicente Miranda Astudillo, Bachelor on Chemistry, School of Chemistry, UNAM, March 2, 2009.
- 9) Dinorah Leyva Illades, Bachelor on Basic Biomedical Research, School of Medicine, UNAM, Jan 20, 2010.
- 10) Diana Rubalcava Gracia Medrano, Bachelor on Basic Biomedical Research, School of Medicine, UNAM, Jan 29, 2014.
- 11) Martha Lilia Colina Tenorio, Bachelor on Basic Biomedical Research, School of Medicine, UNAM, Jun 11, 2014.

#### **Master's Degree Thesis**

- 1) Erika Patricia Rendón Huerta, Master's in Basic Biomedical Research, Institute of Cellular Physiology, UNAM, May 31, 1993.

- 2) Serafín Ramírez Zamora, Master's in Basic Biomedical Research, Institute of Cellular Physiology, UNAM, Jul 13, 1994.
- 3) Emma Berta Gutiérrez-Cirlos Madrid, Master's in Basic Biomedical Research, Institute of Cellular Physiology, UNAM, Dec 13, 1994.
- 4) Anaid Antaramian Salas, Master's in Basic Biomedical Research, Institute of Cellular Physiology, UNAM, March 31, 1995.
- 5) Violeta Carolina Medina Crespo, Master's in Medical Sciences, School of Medicine, UNAM, March 11, 2003.
- 6) Lorena Morales Sainz, Master's in Biochemical Sciences, School of Chemistry, UNAM, May 4, 2007.
- 7) Edith Araceli Cano Estrada, Master's in Biochemical Sciences, School of Chemistry, UNAM, Dec 5, 2007.
- 8) De la Cruz Torres Valentín, Master's in Biological Sciences, Institute of Cellular Physiology, UNAM, Oct 28, 2008.
- 9) Alain Macedo Márquez, Master's in Biochemical Sciences, School of Chemistry, UNAM, Nov 6, 2008.
- 10) Escobar Ramírez Adelma, Master's in Biochemical Sciences, School of Chemistry, UNAM, Nov 27, 2008.
- 11) Alejandra Jiménez Juárez, Master's in Biochemical Sciences, School of Chemistry, UNAM, May 27, 2011.
- 12) Félix Vega de Luna, Master's in Biochemical Sciences, School of Chemistry, UNAM, June 19, 2017.
- 13) Marcos Ostolga Chavarria, Master's in Biochemical Sciences, School of Chemistry, UNAM, June 28, 2021.

#### **Ph.D. Degree Thesis**

- 1) Emma Berta Gutiérrez-Cirlos Madrid, Ph.D. in Biomedical Sciences, Institute of Cellular Physiology, May 29, 1998.
- 2) Antaramian Salas Anaid, Ph.D. in Biomedical Sciences, Institute of Cellular Physiology, July 3, 1998.
- 3) Xochitl Pérez Martínez, Ph.D. in Biochemical Sciences, School of Chemistry, Nov 30, 2000.
- 4) María Soledad Funes Argüello, Ph.D. in Biomedical Sciences, Institute of Cellular Physiology, July 22, 2002.
- 5) Adrián Reyes Prieto, Ph.D. in Biomedical Sciences, Institute of Cellular Physiology, Oct 9, 2002.
- 6) van Lis Robert, Ph.D. in Biomedical Sciences, Institute of Cellular Physiology, June 20, 2003.
- 7) Santillán Torres José Luis, Ph.D. in Biochemical Sciences, School of Chemistry, Oct 25, 2006.
- 8) Figueroa Martínez Francisco Javier, Ph.D. in Biochemical Sciences, School of Chemistry, Dec 14, 2010.
- 9) Elizabeth Rodríguez Salinas, Ph.D. in Biomedical Sciences, Institute of Cellular Physiology, Nov 26, 2012.

- 10) Edith Araceli Cano Estrada, Ph.D. in Biochemical Sciences, School of Chemistry, Dec 11, 2012.
- 11) De la Cruz Torres Valentín, Ph.D. in Biological Sciences, School of Sciences, UNAM, Jan 10. 2014.
- 12) Héctor Vicente Miranda Astudillo, Ph.D. in Biochemical Sciences, School of Chemistry, June 19, 2014.
- 13) Alain Macedo Márquez, Ph.D. in Biochemical Sciences, School of Chemistry, Oct 9, 2014.
- 14) Alexa Villavicencio Queijeiro, Ph.D. in Biomedical Sciences, Institute of Cellular Physiology, UNAM, March 2, 2016.
- 15) Lorenzo Vásquez Sánchez, Ph.D. in Biomedical Sciences, Institute of Cellular Physiology, UNAM, Sept 22, 2017.
- 16) Martha Lilia Colina Tenorio, Ph.D. in Biomedical Sciences, Institute of Cellular Physiology, UNAM, Aug 8, 2018.
- 17) Diana Rubalcava Gracia Medrano, Ph.D. in Biomedical Sciences, Institute of Cellular Physiology, UNAM, March 26, 2019.
- 18) Emma Oliva Fuentes Ramírez, Ph.D. in Biomedical Sciences, Institute of Cellular Physiology, UNAM, Feb 28, 2022.

### **SCIENTIFIC SOCIETIES**

- Member of The Mexican Society of Biochemistry, April 1989 - to date.
- Member of the National System of Researchers (SNI), Mexico, September 1988 to date.
- Member of the Mexican Academy of Sciences, November 24, 1993, to date.

### **AWARDS**

- "National University Award for Young Academics" for teaching in natural sciences, 1994," UNAM, November 10, 1994.

### **GRANTS**

- 01) Fundación Mexicana para la Salud, 1988 - 1989.
- 02) The Third World Academy of Sciences (TWAS RG BC89-31), 1989 -1990.
- 03) CONACyT (P228CCOX891581), 1989 - 1990.
- 04) DGAPA UNAM (IN 206789 UNAM), 1990 - 1993.
- 05) CONACyT (0481-N9109) 1992.
- 06) CONACyT (1371-N9206), 1992 - 1995.
- 07) DGAPA-UNAM (IN 202293 UNAM), 1993 -1994.
- 08) DGAPA-UNAM (IN 204595 UNAM), 1995-1998.
- 09) DGAPA-UNAM (IN 204695 UNAM), 1995-1998.
- 10) CONACyT (2260P-N), 996 -1998.
- 11) DGAPA-UNAM (IN 202598 UNAM) 1998 - 2001.
- 12) CONACyT (27754N) 1998 - 2001.
- 13) 2000 UC MEXUS-CONACyT, 2001-2002

- 14) DGAPA-UNAM (IN 207201 UNAM), 2001 - 2004.
- 15) CONACyT (40696), 2003 – 2005.
- 16) DGAPA-UNAM (IN 218705-3 UNAM) 2005 - 2008.
- 17) CONACyT (56619) 2007 – 2010.
- 18) DGAPA-UNAM (IN 217108 UNAM), 2008 - 2011.
- 19) SEP - CONACYT (128110) 2010 – 2013.
- 20) DGAPA-UNAM (IN 203311 UNAM) 2011 - 2013.
- 21) CONACyT y el Ministero degli Affari Esteri e della Cooperazione Internazionale, Italia. 2010-2013
- 22) CONACyT y el Fonds de la Recherche Scientifique (FNRS, Belgium). 2010-2012.
- 23) DGAPA-UNAM (IN 203114) 2014 - 2016.
- 24) CONACyT y el Fonds de la Recherche Scientifique (FNRS, Belgium). 2015-2017,
- 25) Fondo SEP – CONACYT, 239219, 2015 – 2018.
- 26) DGAPA-UNAM (IN 208917) UNAM), 2017 - 2019.
- 27) FONCICYT 2, FONCICYT DCI, 279125, 2017 - 2020.
- 28) DGAPA-UNAM (IN 209220) UNAM) 2019 - 2021.
- 29) Ciencia de Frontera, CONACyT, 21856, 2020-2022.

#### **INVITED LECTURES IN FOREIGN INSTITUTIONS**

- 01) "The non-heme iron protein from bovine heart mitochondrial complex III"  
Dipartimento di Biologia Evoluzionistica Sperimentale, Università degli Studi di Bologna, Italia, May 23, 1989.
- 02) "The non-heme iron protein from bovine mitochondrial bc<sub>1</sub> complex". Istituto di Scienze Biochimiche, Università di Parma, Italia, June 6, 1989.
- 03) "An atypical cytochrome *b* in the mitochondria of the colorless alga *Polytomella* spp., a close relative of *Chlamydomonas*", Developmental, Cell and Molecular Biology Group, Departments of Botany and Zoology, Duke University, Durham, EU, June 19, 1998.
- 04) "An atypical cytochrome *b* in the mitochondria of the colorless alga *Polytomella* spp., a member of the family Chlamydomonadaceae". Istituto di Scienze Biochimiche, Università di Parma, Italia, Sept 9, 1998.
- 05) "An atypical cytochrome *b* in the mitochondria of the colorless alga *Polytomella* spp., a close relative of *Chlamydomonas*", Institute of Physiology, Czech Republic Academy of Sciences, Prague, Sept 22, 1998.
- 06) "Transfer of Mitochondrial Genes to the Nucleus: the Case of Chlamydomonad Algae", Department of Biochemistry Seminars, University of California at Los Angeles, USA, Oct 10, 2000.

- 07) "Transfer of Mitochondrial Genes to the Nucleus in Chlamydomonas Algae", Cell, Molecular, and Developmental Biology Seminars, University of California at Riverside, EU, Oct 30, 2000.
- 08) "Transfer of mitochondrial genes to the nucleus in chlorophyte algae". Instituto di Scienze Biochimiche, Università di Parma, Italia, Aug 5, 2003.
- 09) "Some changes that take place in mitochondria accompanying the evolutionary loss of photosynthesis" Adolf Butenandt Institute of Physiological Chemistry Ludwig Maximilians University Munich, Germany, May 25, 2004.
- 10) "An atypical mitochondrial ATP synthase in chlorophycean algae", Department of Plant Cellular and Molecular Biology, University of Ohio, Columbus, Ohio, EU, March 14, 2008.
- 11) "An atypical mitochondrial ATP synthase in chlorophycean algae", Dept. of Life Sciences, Instituto Botanico, Université Liege, Liege, Belgium, May 26, 2008.
- 12) Online seminar "A series of structural models for an atypical algal ATP synthase", Department of Biological Sciences, Southern Methodist University, University Park, Texas, EEUU, May 3, 2021.

#### **PUBLICATIONS (indexed articles)**

- 01) Capaldi R.A., González-Halphen D. and Takamiya S. (1986) "Sequence homologies and structural similarities between the polypeptides of yeast and beef heart cytochrome c oxidase". *FEBS Letters* **207**: 11-17 [IF 3.339].
- 02) Capaldi R.A., Takamiya S., Zhang Y.Z., González-Halphen D., and Yanamura W. (1987) Structure of cytochrome c oxidase. *Current Topics in Bioenergetics* **15**: 91-112 [IF 12.714]
- 03) Capaldi R.A., González-Halphen D., Zhang Y.Z., and Yanamura W. (1988). "Complexity and Tissue Specificity of the Mitochondrial Respiratory Chain". *Journal of Bioenergetics and Biomembranes* **20**: 291-311 [IF 4.761].
- 04) González-Halphen D., Lindorfer M.A. and Capaldi, R. A. (1988) "Subunit Arrangement in Beef Heart Complex III". *Biochemistry* **27**: 7021-7031 [IF 5.109].
- 05) García-Horsman, J.A., Barquera, B., González-Halphen, D. and J.E. Escamilla (1991) "Purification and Characterization of a Two Subunit Cytochrome  $aa_3$  from *Bacillus cereus*". *Molecular Microbiology* **5**: 197-205 [IF 6.398].
- 06) González-Halphen, D., Vázquez-Acevedo, M., and García-Ponce B. (1991) "On the Interaction of Mitochondrial Complex III with the Rieske Iron-Sulfur Protein (Subunit V)". *Journal of Biological Chemistry* **266**: 3870-3876 [IF 6.793].



- 07) Devars, S., Torres-Márquez, M.E., González-Halphen, D., Uribe, A. and Moreno-Sánchez, R. (1992) "Cyanide-sensitive and cyanide-resistant respiration of dark-grown *Euglena gracilis*". ***Plant Science* 82**: 37-46 [IF 1.296].
- 08) Vázquez-Acevedo, M., Antaramian, A., Corona, N. and González-Halphen, D. (1993) "Subunit Structures of Purified Beef Mitochondrial Cytochrome *bc*<sub>1</sub> Complex from Liver and Heart". ***Journal of Bioenergetics and Biomembranes* 25**: 401-410 [IF 4.761].
- 09) Gutiérrez-Cirlos, E.B., Antaramian, A., Vázquez-Acevedo, M., Coria, R., and González-Halphen, D. (1994) "A Highly Active Ubiquinol-Cytochrome *c* Reductase ( *bc*<sub>1</sub> Complex ) from the Colorless Alga *Polytomella* spp., a Close Relative of *Chlamydomonas*. Characterization of the Heme Binding Site of Cytochrome *c*<sub>1</sub>". ***Journal of Biological Chemistry* 269**: 9147-9154 [IF 6.793].
- 10) Cogoni, C., Valenzuela, L., González-Halphen, D., Olivera, H., Macino, G., Ballario, P. and González, A. (1995) "*Saccharomyces cerevisiae* has a Single Glutamate Synthase Gene Coding for a Plant-like High Molecular Weight Polypeptide". ***Journal of Bacteriology* 177**: 792-798 [IF 3.965].
- 11) Lotina-Hennsen, B., González-Halphen, D., Uribe, S., Rangel, P., and Gómez-Lojero, C. (1995) "DBHBM (3,5 dibromo-4-hydroxy-benzylidenemalonitrile) is a novel inhibitor of electron transfer through the Q<sub>N</sub> center of the mitochondrial *bc*<sub>1</sub> complex". ***Archives of Biochemistry and Biophysics* 318**: 200-206 [IF 2.307].
- 12) Vázquez-Acevedo, M., Coria, R., González-Astiazarán, A., Medina-Crespo, V., Ridaura-Sanz, C., and González-Halphen, D. (1995) "Characterization of a 5,025 base pair mitochondrial DNA deletion in Kearns-Sayre Syndrome". ***Biochimica et Biophysica Acta (Molecular Basis of Disease)* 1271**: 363-368 [IF 2.467].
- 13) Santorelli, F.M., Suk-Chun, M., Vázquez-Acevedo, M., González-Astiazarán, A., Ridaura-Sanz, C., González-Halphen, D. and DiMauro, S. (1995) "A novel mitochondrial DNA point mutation associated with mitochondrial encephalocardiomyopathy." ***Biochemical and Biophysical Research Communications* 216**: 835-840 [IF 3.312].
- 14) Antaramian, A., Coria, R., Ramírez, J., and González-Halphen, D. (1996) "The deduced primary structure of subunit I from cytochrome *c* oxidase suggests that the genus *Polytomella* shares a common mitochondrial origin with *Chlamydomonas*." ***Biochimica et Biophysica Acta (Bioenergetics)* 1273**: 198-202 [IF 2.467].
- 15) Atteia, A., Dreyfus, G., and González-Halphen, D. (1997) "Characterization of the alpha and beta subunits of the F<sub>1</sub>F<sub>0</sub> ATPase from the alga *Polytomella* spp., a

colorless relative of *Chlamydomonas reinhardtii*." ***Biochimica et Biophysica Acta (Bioenergetics)* 1320**: 275-284 [IF 2.430].

- 16) Gutiérrez-Cirlos E.B., Gómez-Lojero, C., Vázquez-Acevedo, M., Pérez-Martínez, X., and González-Halphen, D. (1998) "An atypical cytochrome *b* in the colorless alga *Polytomella* spp.: the high potential  $b_h$  heme exhibits a double transition in the a peak of its absorption spectrum". ***Archives of Biochemistry and Biophysics* 353**: 322-330 [IF 2.307].
- 17) Antaramian A., Funes S., Vázquez-Acevedo M., Atteia A., Coria R., and González-Halphen D. (1998) "Two unusual amino acid substitutions in cytochrome *b* of the colorless alga *Polytomella* spp.: correlation with the atypical spectral properties of the  $b_h$  heme". ***Archives of Biochemistry and Biophysics* 354**: 206-214 [IF 2.307].
- 18) Romero, M., Guzmán-León, S., Aranda, C., González-Halphen, D., Valenzuela, L., and González, A. (2000) "Pathways for glutamate biosynthesis in the yeast *Kluyveromyces lactis*". ***Microbiology (UK)* 146**: 239-245 [IF 2.477].
- 19) Atteia, A., van Lis, Robert, Ramírez, J., and González-Halphen, D. (2000) "*Polytomella* spp. growth on ethanol. Extracellular pH affects the accumulation of mitochondrial cytochrome  $c_{550}$ ". ***European Journal of Biochemistry* 267**: 2850-2858 [IF 3.275].
- 20) Pérez-Martínez, X., Vázquez-Acevedo, M., Tolkunova, E., Funes, S., Claros, M.G., Davidson, E., King, M.P., and González-Halphen, D. (2000) "Unusual location of a mitochondrial gene: subunit III of cytochrome *c* oxidase is encoded in the nucleus of chlamydomonad algae". ***Journal of Biological Chemistry* 275**: 30144-30152 [IF 7.666].
- 21) Seyda, A., Newbold, R.F., Hudson, T.J., Verner, A., MacKay, N., Winter, S., Feigenbaum, A., Malaney, S., Gonzalez-Halphen, D., Cuthbert, A.P., and Robinson B.H. (2001) "A novel syndrome affecting multiple mitochondrial functions, located by microcell-mediated transfer to chromosome 2p14-2p13". ***Am. J. Hum. Genet.* 68**: 386-396 [IF 10.426].
- 22) Pérez-Martínez, X., Antaramian, A., Vázquez-Acevedo, M., Funes, S., Tolkunova, E., d'Alayer, J., Claros, M.G., Davidson, E., King, M.P., and González-Halphen, D. (2001) "Subunit II of cytochrome *c* oxidase in chlamydomonad algae is a heterodimer encoded by two independent nuclear genes". ***Journal of Biological Chemistry* 276**: 11302-11309 [IF 7.368].
- 23) Funes, S., Davidson, E., Claros M.G., van Lis, R., Pérez-Martínez, X., Vázquez-Acevedo, M., King M.P. and González-Halphen, D. (2002) "The typically mtDNA-encoded ATP6 subunit of the mitochondrial  $F_1F_0$ -ATPase is encoded by

a nuclear gene in *Chlamydomonas reinhardtii*". **Journal of Biological Chemistry** **277**: 6051-6058 [IF 7.368].

- 24) Pérez-Martínez, X., Funes, S., Tolkunova, E., Davidson, E., King, M.P. and González-Halphen, D. (2002) "Structure of nuclear-localized *cox3* genes in *Chlamydomonas reinhardtii* and in its colorless close relative *Polytomella* sp." **Current Genetics** **40**: 399-404 [IF 1.977].
- 25) Adrián Reyes-Prieto, Mohammed El-Hafidi, Rafael Moreno-Sánchez and Diego González-Halphen (2002) "Characterization of oxidative phosphorylation in the colorless chlorophyte *Polytomella* sp. Its mitochondrial respiratory chain lacks a plant-like alternative oxidase". **Biochim. Biophys. Acta** **1554**:170-179 [IF 5.114].
- 26) Funes, S., Davidson, E., Reyes-Prieto, A., Magallón, S., Herion, P., King, M.P., and González-Halphen, D. (2002) "A green algal apicoplast ancestor". **Science**, **298**: 2155 [IF 23.329]
- 27) Vázquez-Acevedo, M., Vázquez-Memije, M.E., Mutchinick, O.M., Morales J.J., García-Ramos, G., and González-Halphen, D. (2002) "A case of Kearns-Sayre Syndrome with the 4,977 bp common deletion escorting a novel 7,704 bp deletion". **Neurological Sciences**, **23**: 247-250 [IF 0.380].
- 28) Atteia, A., van Lis, R., Wetterskog, D., Gutiérrez-Cirlos, E.-B., Ongay-Larios, L., Franzén, L.-G. and González-Halphen, D. (2002) "Structure, organization and expression of the genes encoding mitochondrial cytochrome *c<sub>1</sub>* and the Rieske iron-sulfur protein in *Chlamydomonas reinhardtii*". **Molecular Genetics and Genomics**, **268**: 637-644 [IF 2.552].
- 29) van Lis R., Atteia, A., Mendoza-Hernández, G., and González-Halphen, D. (2003) "Identification of novel mitochondrial protein components of *Chlamydomonas reinhardtii*. A proteomic approach". **Plant Physiology**, **132**: 318-330 [IF 5.105].
- 30) Santillán Torres, J.L., Atteia, A., M. Claros, M.G., and González-Halphen, D. (2003) "Cytochrome *f* and subunit IV, two essential components of the photosynthetic *bf* complex typically encoded in the chloroplast genome, are nucleus-encoded in *Euglena gracilis*". **Biochim. Biophys. Acta** **1604**:180-189 [IF 5.381].
- 31) Funes, S., Davidson, E., Reyes-Prieto, A., Magallón, S., Herion, P., King, M.P., and González-Halphen, D. (2003) "Reply to comment on *A green algal apicoplast ancestor*". **Science**, **301**: 49 [IF 23.329]  
<http://www.sciencemag.org/cgi/content/full/301/5629/49b>

- 32) Atteia, A., van Lis, R., Mendoza-Hernández, G., Henze, K., Martin, W., Riveros-Rosas, H., and González-Halphen, D. (2003) "Bifunctional aldehyde/alcohol dehydrogenase (ADHE) in chlorophyte algal mitochondria". ***Plant Molecular Biology***, 53: 175-188 [IF 3.577].
- 33) Funes, S., Reyes-Prieto, A., Pérez-Martínez, X. and González-Halphen, D. (2004) "On the evolutionary origins of apicoplasts: revisiting the rhodophyte vs. chlorophyte controversy". ***Microbes and Infection***, 6: 305-311 [IF 3.127].
- 34) González-Halphen, D. and Maslov, D.M. (2004) "NADH-ubiquinone oxidoreductase activity in the kinetoplasts of the plant trypanosomatid *Phytomonas serpens*". ***Parasitology Research*** 92: 341-346 [IF 1.140].
- 35) González-Halphen, D., Funes, S., Pérez-Martínez, X., Reyes-Prieto, A., Claros, M.G., Davidson, E. and King, M.P. (2004) "Genetic Correction of Mitochondrial Diseases: Using the Natural Migration of Mitochondrial Genes to the Nucleus in Chlorophyte Algae as a Model System." ***Ann. N. Y. Acad. Sci.*** 1019: 232-239 [IF 1.930].
- 36) van Lis, R., Gonzalez-Halphen, D. and Atteia, A. (2005) "Divergence of the mitochondrial electron transport chains from the green alga *Chlamydomonas reinhardtii* and its colorless close relative *Polytomella* sp." ***Biochim. Biophys. Acta (Bioenergetics)***, 1708: 23-34 [IF 5.381].
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