

CURRICULUM VITAE

Name: Sebastián Chávez de Diego
Nationality: Spanish
Identity number: 28871255E

Born: July 25, 1964
Seville, Spain

Address: Instituto de Biomedicina de Sevilla-IBiS
Universidad de Sevilla-CSIC-HUVR
Avda. Manuel Siurot s/n
41013 Seville
Spain

Phone (lab): +34-955923127
E-mail: schavez@us.es

Studies and diplomas

Undergraduate: University of Seville
Biology (1982-1987)
B.A. ("Licenciatura")
"Sobresaliente" (first-class academic mark). Award with special distinction.
Award *Compañía Sevillana de Electricidad* to the highest mark student, 1987.

Graduate: University of Seville
Biochemistry and molecular biology (1988-1992)
Ph.D. ("Doctorado")
Grade: "Apto *cum laude* por unanimidad" (first-class academic mark)

Ph. D. Thesis Glutamate dehydrogenases in cyanobacteria
Supervisor: Dr. Pedro Candau Chacón
Biochemistry Department, University of Seville.

Research experience and positions

Jan. 1988 - Dec. 1992	Research fellow. Instituto de Bioquímica Vegetal y Fotosintesis, Sevilla. PhD thesis work.
Sept. - Dec. 1989	Stay in the Centre d'Etudes Nucléaires de Saclay, Gif sur Yvette, France, under the supervision of Dr. F. Chauvat. Research: Isolation of DNA fragments involved in light regulation of gene expression in cyanobacteria.
Jan. 1993 - Sept. 1995	Postdoctoral stay in the Institut für Molekularbiologie und Tumorforschung, Philipps-Universität Marburg, Germany, working under the supervision of Prof. Miguel Beato. Research: Influence of chromatin structure on regulated transcription by steroid hormones.
Oct. 1995 – Sept. 2000	Research fellow. Genetics Department, University of Seville. Research: Relationship between transcription and genome stability.
July - Septemb. 1999	Stay in the Clare Hall laboratories of ICRF, South Mimms, England, collaborating with Dr. Jesper Svejstrup. Subject of research: Purification of the THO complex from <i>Saccharomyces cerevisiae</i> .
Sept. 2000 – May 2010	Associate professor. Genetics Department, University of Seville. Research: Transcription elongation in <i>Saccharomyces cerevisiae</i> .
Jan - July 2008	Sabbatical stay in the laboratory of Prof. David Bentley, University of Colorado and Health Sciences Center, Denver, Colorado, USA.
May 2010-present	Full professor. Genetics Department, University of Seville. Research: Gene expression in eukaryotic cells.
January 2014-present	Principal Investigator. Instituto de Biomedicina de Sevilla-IBiS Universidad de Sevilla-CSIC-HUVR. Research: Gene expression in eukaryotic cells and its biomedical applications.
January 2020-present	Director of Evaluation and Accreditation of the Andalusian Agency for Knowledge, AAC-DEVA (Andalusian agency for research evaluation and university quality assurance).

Key words of current research: Gene expression, transcription elongation, chromatin, functional genomics, genetic analysis, mRNA decay/gene transcription crosstalk, prefoldin.

Teaching experience

Oct. 1987 - Dec. 1992 Biochemistry, University of Seville.

Oct. 1995 - present Genetics and Molecular Biology, University of Seville.

Publications

Garcia-Martinez J, Medina DA, Bellvis P, Sun M, Cramer P, Chávez S, Pérez-Ortín JE (2022). The total mRNA concentration buffering system in yeast is global rather than gene-specific RNA (in press) doi: 10.1261/rna.078774.121

Payán-Bravo L, Fontalva S, Peñate X, Cases I, Guerrero-Martínez JA, Pareja-Sánchez Y, Odriozola-Gil Y, Lara E, Jimeno-González S, Suñé C, Muñoz-Centeno MC, Reyes JC, Chávez S (2021)

Human prefoldin modulates co-transcriptional pre-mRNA splicing.
Nucleic Acids Res. 2021 49:6267-6280. doi: 10.1093/nar/gkab446.

Pérez-Ortín JE, Mena A, Barba-Aliaga M, Singh A, Chávez S, García-Martínez J (2021). Cell volume homeostatically controls the rDNA repeat copy number and rRNA synthesis rate in yeast.

PLoS Genet.17(4):e1009520. doi: 10.1371/journal.pgen.1009520.

Begley, V, De Miguel-Jiménez L, Chávez S (2021).

Transcriptional Run-on: Measuring Nascent Transcription at Specific Genomic Sites in Yeast.
Bio-protocol 11(12): e4064. DOI: 10.21769/BioProtoc.4064.

Begley V, Jordán-Pla A, Peñate X, Garrido-Godino AI, Challal D, Cuevas-Bermúdez A, Mitjavila A, Barucco M, Gutiérrez G, Singh A, Alepuz P, Navarro F, Libri D, Pérez-Ortín JE, Chávez S (2020)

Xrn1 influence on gene transcription results from the combination of general effects on elongating RNA pol II and gene-specific chromatin configuration.
RNA Biol. 1:1-14. doi: 10.1080/15476286.2020.1845504.

Peñate X, Praena-Fernández JM, Romero Pareja P, Enguix-Riego MDV, Payán-Bravo L, Vieites B, Gomez-Izquierdo L, Jaen Olasolo J, Rivin Del Campo E, Reyes JC, Chávez S, Lopez Guerra JL. (2020)

Overexpression of Canonical Prefoldin Associates with the Risk of Mortality and Metastasis in Non-Small Cell Lung Cancer.

Cancers (Basel). 24;12(4):1052. doi: 10.3390/cancers12041052.

Pérez-Ortín JE, Tordera V, Chávez S. (2019) Homeostasis in the Central Dogma of molecular biology: the importance of mRNA instability.

RNA Biol. 2019 Dec;16(12):1659-1666. doi: 10.1080/15476286.2019.1655352.

Begley V, Corzo D, Jordán-Pla A, Cuevas-Bermúdez A, Miguel-Jiménez L, Pérez-Aguado D, Machuca-Ostos M, Navarro F, Chávez MJ, Pérez-Ortín JE, Chávez S. (2019)

The mRNA degradation factor Xrn1 regulates transcription elongation in parallel to Ccr4.
Nucleic Acids Res. 47(18):9524-9541. doi: 10.1093/nar/gkz660.

Maya Miles D, Peñate X, Sanmartín Olmo T, Jourquin F, Muñoz Centeno MC, Mendoza M, Simon MN, Chavez S, Geli V (2018).

High levels of histones promote whole-genome-duplications and trigger a Swe1^{WEE1}-dependent

phosphorylation of Cdc28^{CDK1}.
eLife 7. pii: e35337. doi: 10.7554/eLife.35337.

de la Cruz J, Gómez-Herreros F, Rodríguez-Galán O, Begley V, de la Cruz Muñoz-Centeno M, Chávez S (2018).

Feedback regulation of ribosome assembly.
Current Genetics. 64:393-404. doi: 10.1007/s00294-017-0764-x.

Martínez-Fernández V, Garrido-Godino AI, Mirón-García MC, Begley V, Fernández-Pévida A, de la Cruz J, Chávez S, Navarro F (2018).

Rpb5 modulates the RNA polymerase II transition from initiation to elongation by influencing Spt5 association and backtracking.

Biochim Biophys Acta 1861:1-13. doi: 10.1016/j.bbagr.2017.11.002.

Payán-Bravo L, Peñate X, Chávez S. (2018).

Functional Contributions of Prefoldin to Gene Expression.
Adv Exp Med Biol. 1106:1-10. doi: 10.1007/978-3-030-00737-9_1.

Gutiérrez G, Millán-Zambrano G, Medina DA, Jordán-Pla A, Pérez-Ortín JE, Peñate X, Chávez S (2017).

Subtracting the sequence bias from partially digested MNase-seq data reveals a general contribution of TFIIS to nucleosome positioning.

Epigenetics and Chromatin. 10:58. doi: 10.1186/s13072-017-0165-x.

Silva A, Cavero S, Begley V, Solé C, Böttcher R, Chávez S, Posas F, de Nadal E (2017).

Regulation of transcription elongation in response to osmostress.

PLoS Genetics 13(11):e1007090. doi: 10.1371/journal.pgen.1007090.

Gómez-Herreros F, Margaritis T, Rodríguez-Galán O, Pelechano V, Begley V, Millán-Zambrano G, Morillo-Huesca M, Muñoz-Centeno MC, Pérez-Ortín JE, de la Cruz J, Holstege FCP, Chávez S (2017).

The ribosome assembly gene network is controlled by the feedback regulation of transcription elongation.

Nucleic Acids Research. 45:9302-9318. doi: 10.1093/nar/gkx529.

Mena A, Medina DA, García-Martínez J, Begley V, Singh A, Chávez S, Muñoz-Centeno MC, Pérez-Ortín JE (2017).

Asymmetric cell division requires specific mechanisms for adjusting global transcription.
Nucleic Acids Research. 45:12401-12412. doi: 10.1093/nar/gkx974.

Chávez S*, García-Martínez J, Delgado-Ramos L, Pérez-Ortín JE* (2016).

The importance of controlling mRNA turnover during cell proliferation.
Current Genetics. 62:701-710.

García-Martínez J, Delgado-Ramos L, Ayala G, Pelechano V, Medina DA, Carrasco F, González R, Andrés-León E, Steinmetz L, Warringer J, Chávez S*, Pérez-Ortín JE* (2016).

The cellular growth rate controls overall mRNA turnover, and modulates either transcription or degradation rates of particular gene regulons.

Nucleic Acids Research 44:3643-3658. doi: 10.1093/nar/gkv1512.

García-Martínez J, Troulé K, Chávez S*, Pérez-Ortín JE* (2016).

Growth rate controls mRNA turnover in steady and non-steady states.
RNA Biology. 13:1175-1181.

Jordán-Pla A, Gupta I, de Miguel-Jiménez L, Steinmetz LM, Chávez S*, Pelechano V*, Pérez-Ortín JE* (2015).

Chromatin-dependent regulation of RNA polymerases II and III activity throughout the transcription cycle.

Nucleic Acids Research 43: 787-802.

Nadal-Ribelles M, Mas G, Millán-Zambrano G, Solé C, Ammerer G, Chávez S, Posas F, de Nadal E (2015).

H3K4 monomethylation dictates nucleosome dynamics and chromatin remodeling at stress-responsive genes

Nucleic Acids Research. 43: 4937-4949. doi: 10.1093/nar/gkv220.

González-Barrios M, Fierro-González JC, Krpelanova E, Mora-Lorca JA, Pedrajas JR, Peñate X, Chávez S, Swoboda P, Jansen G, Miranda-Vizuete A (2015).

Cis- and trans-regulatory mechanisms of gene expression in the ASJ sensory neuron of *Caenorhabditis elegans*.

Genetics. 200: 123-34. doi: 10.1534/genetics.115.176172.

Delgado-Ramos L, Marcos AT, Ramos-Guelfo MS, Sánchez-Barrionuevo L, Smet F, Chávez S*, Cánovas D* (2014).

Flow cytometry of microencapsulated colonies for genetics analysis of filamentous fungi.
G3 Genes Genomes Genetics. 4: 2271-2278. doi: 10.1534/g3.114.014357.

Mirón-García MC, Garrido-Godino AI, Martínez-Fernández V, Fernández-Pevida A, Cuevas-Bermúdez A, Martín-Expósito M, Chávez S, de la Cruz J, Navarro F (2014).

The yeast prefoldin-like URI-orthologue Bud27 associates with the RSC nucleosome remodeler and modulates transcription.

Nucleic Acids Research. 42: 9666-9676. doi: 10.1093/nar/gku685.

Millán-Zambrano G, Chávez S (2014).

Nuclear functions of prefoldin.

Open Biology. 4. pii: 140085. doi: 10.1098/rsob.140085.

Medina DA, Jordán-Pla A, Millán-Zambrano G, Chávez S, Choder M, Pérez-Ortín JE (2014).

Cytoplasmic 5'-3' exonuclease Xrn1p is also a genome-wide transcription factor in yeast.

Frontiers in Genetics. 5:1. doi: 10.3389/fgene.2014.00001.

Millán-Zambrano G, Rodríguez-Gil A, Peñate X, de Miguel-Jiménez L, Morillo-Huesca M, Krogan N, Chávez S (2013).

The Prefoldin Complex Regulates Chromatin Dynamics during Transcription Elongation
PLoS Genetics 9: e1003776

Haimovich, G; Medina, D; Causs, S; Garber, M; Millán-Zambrano, G; Barkai, O; Chávez, S; Pérez-Ortín, JE; Darzacq, X; Choder, M. (2013).

Gene expresión is circular: factors for mRNA degradation also foster mRNA synthesis.
Cell. 153 - 5, pp. 1000 - 1011.

Gómez-Herreros F, Rodríguez-Galán O, Morillo-Huesca M, Maya D, Arista-Romero M, de la

Cruz J, Chávez S, Muñoz-Centeno MC (2013).
Balanced production of ribosome components is required for proper G1/S transition in *Saccharomyces cerevisiae*.
Journal of Biological Chemistry. 288: 31689-31700. doi: 10.1074/jbc.M113.500488.

Pérez-Ortín JE, Medina DA, Chávez S, Moreno J (2013).
What do you mean by transcription rate?: the conceptual difference between nascent transcription rate and mRNA synthesis rate is essential for the proper understanding of transcriptomic analyses.
Bioessays. 35:1056-62. doi: 10.1002/bies.201300057.

External conditions inversely change the RNA polymerase II elongation rate and density in yeast.
Miguel A, Montón F, Li T, Gómez-Herreros F, Chávez S, Alepuz P, Pérez-Ortín JE (2013).
Biochim Biophys Acta. 1829(1248-55. doi: 10.1016/j.bbagr.2013.09.008.

Pérez-Ortín JE, Alepuz P, Chávez S, Choder M (2013).
Eukaryotic mRNA decay: methodologies, pathways, and links to other stages of gene expression.
J Mol Biol. 425:3750-75. doi: 10.1016/j.jmb.2013.02.029.

Gaytán BD, Loguinov AV, Peñate X, Lerot JM, Chávez S, Denslow ND, Vulpe CD (2013).
A genome-wide screen identifies yeast genes required for tolerance to technical toxaphene, an organochlorinated pesticide mixture.
PLoS One. 8:e81253. doi: 10.1371/journal.pone.0081253.

M.C. Muñoz-Centeno, G. Millán-Zambrano and S. Chávez (2012).
A matter of packaging: influence of nucleosome positioning on heterologous gene expression.
Methods in Molecular Biology 824: 51-64.

J. García-Martínez, G. Ayala, V. Pelechano, S. Chávez, E. Herrero and J.E. Pérez-Ortín (2012).
The relative importance of transcription rate, cryptic transcription and mRNA stability on shaping stress responses in yeast
Transcription 3: 39-44.

J.E. Pérez-Ortín, L. de Miguel-Jiménez and S. Chávez (2012).
Genome-wide studies of mRNA synthesis and degradation in eukaryotes.
Biochimica et Biophysica Acta 1819: 604-615.

S. Chávez, D.S. Gross, D. Hermand and C. Suñé (2012).
Gene Control during Transcription Elongation.
Genetics Research International 2012: ID758384.

F. Gómez-Herreros, L. de Miguel-Jiménez, M. Morillo-Huesca, L. Delgado-Ramos, M.C. Muñoz-Centeno and S. Chávez (2012).
TFIIS is required for the balanced expression of the genes encoding ribosomal components under transcriptional stress.
Nucleic Acids Research 40: 6508-6519.

F. Gómez-Herreros, L. de Miguel-Jiménez, G. Millán-Zambrano, X. Peñate, L. Delgado-Ramos, M.C. Muñoz-Centeno and S. Chávez (2012).

One step back before moving forward: regulation of transcription elongation by arrest and backtracking.

FEBS Letters 586: 2820-2825.

L. Martín-Banderas, R. González-Prieto, A. Rodríguez-Gil, M. Fernández-Arévalo, M. Flores-Mosquera, S. Chávez, and A.M. Gañán-Calvo (2011).

Application of Flow Focusing to the Break-Up of a Magnetite Suspension Jet for the Production of Paramagnetic Microparticles
Journal of Nanomaterials 2011: ID527437.

E. Gallastegui, G. Millán-Zambrano, J.M. Terme, S. Chávez and A. Jordan (2011).

Chromatin reassembly factors are involved in transcriptional interference promoting HIV latency
Journal of Virology 85: 3187-3202.

A. Rodríguez-Gil, J. García-Martínez, V. Pelechano, M.C. Muñoz-Centeno, V. Geli, J.E. Pérez-Ortín and S. Chávez (2010).

The distribution of active RNA polymerase II along the transcribed region is gene-specific and controlled by elongation factors.
Nucleic Acids Research 38: 4651-4664.

M. Morillo-Huesca, D. Maya, M.C. Muñoz-Centeno, R. Kumar Singh, V. Oreal, G. U. Reddy, D. Liang, V. Géli, A. Gunjan, and S. Chávez (2010).

FACT Prevents the Accumulation of Free Histones Evicted from Transcribed Chromatin and a Subsequent Cell Cycle Delay in G1
PLoS Genetics 6: e1000964.

V. Pelechano, S. Chávez and J.E. Pérez-Ortín (2010).

A Complete Set of Nascent Transcription Rates for Yeast Genes
PLoS One 5: e15442.

M. Vanti, E. Gallastegui, I. Respaldiza, A. Rodríguez-Gil, F. Gómez-herreros, S. Jimeno-González, A. Jordan and S. Chávez (2009).

Yeast genetic analysis reveals the involvement of chromatin reassembly factors in repressing HIV-1 Basal transcription.
PLoS Genetics 5: e1000339.

H. Gaillard, C. Tous, J. Botet, M. J. Quintero, L. Viladevall, M. L. García-Rubio, A. Rodríguez-Gil, A. Marín, J. Ariño, J. L. Revuelta, S. Chávez and A. Aguilera (2009).

Genome-wide analysis of factors affecting transcription elongation and DNA repair: a new role for PAF and Ccr4-Not in transcription-coupled repair.
PLoS Genetics 5: e1000364.

G. Mas, E. de Nadal, R. Dechant, M. L. Rodríguez de la Concepción, C. Logie, S. Jimeno-González, S. Chávez, G. Ammerer and F. Posas (2009).

Recruitment of a chromatin remodelling by the Hog1 MAP kinase to stress genes.
The EMBO Journal 28: 326-336, 2009.

V. Pelechano, S. Jimeno-González, A. Rodríguez-Gil, J. García-Martínez, J.E. Pérez-Ortín and S. Chávez

Regulon-specific control of transcription elongation across the yeast genome.
PLoS Genetics 5: e1000614, 2009

M. Garcia-Rubio, S. Chávez, P. Huertas, C. Tous, S. Jimeno, R. Luna y A. Aguilera (2008).

Different physiological relevance of yeast THO/TREX subunits in gene expression and genome integrity
Molecular Genetics and Genomics 279:123-132, 2008

D. Maya, MJ Quintero, M de la Cruz Muñoz-Centeno and S. Chávez (2008).
Systems for applied gene control in *Saccharomyces cerevisiae*.
Biotechnology Letters 30: 979-987,

P. Pascual-García, C.K. Govind, E. Queralt, B. Cuenca-Bono, A. Llopis, S. Chávez, A.G. Hinnebush and S. Rodríguez-Navarro (2008).
Sus1 is recruited to coding regions and functions during transcription elongation in association with SAGA and TREX2.
Genes and Development 22: 2811-2822.

M.J. Quintero, D. Maya, M. Arévalo-Rodríguez, A. Cebolla and S. Chávez (2007).
An improved system for estradiol-dependent regulation of gene expression in yeast.
Microbial Cell Factories 6:10.

M. Morillo-Huesca, M. Vanti and S. Chávez (2006).
A simple *in vivo* assay for measuring the efficiency of gene length-dependent processes in yeast mRNA biogenesis.
FEBS Journal: 273: 756-769, 2006

L. Martín-Banderas, A. Rodríguez-Gil, A. Cebolla, S. Chávez, Juan M. Fernández García, M. Flores-Mosquera, and A. Gañán-Clavo (2006).
Towards a high throughput production of uniform encoded microparticles.
Advanced Materials 18: 559-564.

L. Trésaugues, P.M. Dehé, Raphaël Guérois, A. Rodríguez-Gil, I. Varlet, P. Salah, M. Pamblanco, P. Luciano, S. Quevillon-Cheruel, J. Sollier, N. Leulliot, J. Couprie, V. Tordera, S. Zinn-Justin, S. Chávez, H. Van Tilbeurgh and V. Géli (2006).
Structural characterization of Set1 RNA recognition motifs and their role in histone H3 lysine 4 methylation.
Journal of Molecular Biology 359: 1170-1181.

A. M. Gañán-Calvo, L. Martín-Banderas, R. González-Prieto, A. Rodríguez-Gil, A., T. Berdún-Alvarez, A. Cebolla, S. Chávez and M. Flores-Mosquera (2006).
Straightforward production of encoded microbeads by Flow Focusing: potential applications for biomolecule detection.
International Journal of Pharmaceutics 324: 19-26.

P.M. Dehe, B. Dicht, D. Schaft, A. Roguev, M. Pamblanco, R. Lebrun, A. Rodriguez-Gil, M. Mkandawire, K. Landsberg, A. Shevchenko, A. Shevchenko, L.E. Rosaleny, V. Tordera, S. Chávez, A.F. Stewart and V. Geli (2006).
Protein interactions within the Set1 complex and their roles in the regulation of histone 3 lysine 4 methylation.
Journal of Biologica Chemistry 281: 35404-35412.

S. Jimeno-González, F. Gómez-Herreros, P.M. Alepuz and S. Chávez (2006).
A gene-specific requirement for FACT during transcription is related to the chromatin organization of the transcribed region.

Molecular and Cellular Biology 26: 8710-8721.

L. Martín-Banderas, M. Flores-Mosquera, P. Riesco-Chueca, A. Rodríguez-Gil, A. Cebolla, S. Chávez and A. Gañán-Clavo (2005).

Flow Focusing: A versatile technology to produce size-controlled and specific-morphology microparticles.

Small 1: 688-692.

S. Chávez (Editor) and several authors (2005).

Perspectivas en Genética y Biomedicina

ISBN 84-9756-332-8

Editorial Síntesis (Madrid)

S. Chávez, M. García-Rubio, F. Prado and A. Aguilera (2001).

Hpr1 is preferentially required for transcription of either long or G+C-rich DNA sequences in *Saccharomyces cerevisiae*.

Molecular and Cellular Biology 21: 7054-7064.

A. Aguilera, S. Chávez and F. Malagón (2000).

Mitotic recombination in yeast: elements controlling its incidence.

Yeast 16: 731-754, 2000.

L. Montoliu, S. Chávez and M. Vidal (2000).

Variegation associated with *lacZ* in transgenic animals: a warning note.

Transgenic Research 9: 237-239.

S. Chávez, T. Beilharz, A. G. Rondón, H. Erdjument-Bromage, P. Tempst, J.Q. Svejstrup, T. Lithgow and A. Aguilera (2000).

A protein complex containing Tho2, Hpr1, Mft1 and a novel protein, Thp2, connects transcription elongation with mitotic recombination in *Saccharomyces cerevisiae*.

The EMBO Journal 19: 5824-5834.

S. Chávez, J.M. Lucena, J.C. Reyes, F.J. Florencio and P. Candau (1999).

The presence of glutamate dehydrogenase is a selective advantage for the cyanobacterium *Synechocystis* sp. strain PCC 6803 under nonexponential growth conditions.

Journal of Bacteriology 181: 808-813.

J.M. Lucena, S. Chávez and P. Candau (1998).

Participación de la glutamato deshidrogenasa en la asimilación de amonio por la cianobacteria *Synechocystis* sp. PCC 6803.

In Avances en el metabolismo del nitrógeno: de la Fisiología a la Biología Molecular. J.M. Vega, P.J. Aparicio, F. Castillo y J.M. Maldonado (Eds.). Servicio de Publicaciones de la Universidad de Sevilla, Sevilla, Spain, pp. 107-115.

S. Chávez and M. Beato (1997).

Nucleosome-mediated synergism between transcription factors on the mouse mammary tumor virus promoter.

Proceedings of the National Academy of Sciences of the USA 94: 2885-2890.

W. Gong, S. Chávez and M. Beato (1997).

Point mutation in the ligand-binding domain of the progesterone receptor generates a

transdominant negative phenotype.
Molecular Endocrinology 11: 1476-1485.

M. Beato, R. Candau, S. Chávez, C. Möws and M. Truss (1997).
Role of a positioned nucleosome in constitutive repression and hormone induction of the MMTV promoter.
In Nuclear organization, chromatin structure and gene expression. R. van Driel y A.P. Otte (Eds.). Oxford University Press, Great Britain, ISBN 0 19 854923 7, pp 19-39.

M. Beato, S. Chávez, K. Eisfeld, C. Spangenberg and M. Truss (1997).
Chromatin structure and gene regulation by steroid hormones.
In Genome: Structure and Function. C. Nicolini (Ed.). NATO ASI Series, Kluwer Academic Publishers, The Netherlands, pp. 127-144.

S. Chávez and A. Aguilera (1997).
The yeast *HPR1* gene has a functional role in transcriptional elongation that uncovers a novel source of genome instability.
Genes and Development 11: 3459-3470.

J.I. Piruat, S. Chávez and A. Aguilera (1997).
The yeast *HRS1* gene is involved in positive and negative regulation of transcription and shows genetic characteristics similar to *SIN4* and *GAL11*.
Genetics 147: 1585-1594.

M. Beato, R. Candau, S. Chávez, C. Möws and M. Truss (1996).
Interaction of steroid hormone receptors with transcription factors involves chromatin remodelling.
Journal of Steroid Biochemistry and Molecular Biology 56: 47-59.

R. Candau, S. Chávez and M. Beato (1996).
The hormone responsive region of MMTV positions a nucleosome and precludes access of Nuclear Factor I to the promoter.
Journal of Steroid Biochemistry and Molecular Biology 57: 19-31.

M. Truss, J. Bartsch, C. Möws, S. Chávez and M. Beato (1996).
Chromatin structure of the MMTV promoter and its changes during hormonal induction.
Cellular and Molecular Neurobiology 16: 85-101.

M. Beato, M. Truss and S. Chávez (1996).
Control of transcription by steroid hormones.
Annals of the New York Academy of Sciences 784: 93-123.

M. Beato S. Chávez and M. Truss (1996).
Transcriptional regulation by steroid hormones.
Steroids 61: 240-251.

F. Navarro, S. Chávez, P. Candau and F.J. Florencio (1995).
Existence of two ferredoxin-glutamate synthases in the cyanobacteum *Synechocystis* sp. 6803:
Isolation and insertional inactivation of *gltB* and *gltS* genes.
Plant Molecular Biology 27: 753-767.

S. Chávez, J.C. Reyes, F. Chauvat, F.J. Florencio and P. Candau (1995).
The NADP-glutamate dehydrogenase of the cyanobacterium *Synechocystis* 6803: cloning, transcriptional analysis and disruption of the *gdhA* gene.
Plant Molecular Biology 28: 173-188.

M. Truss, R. Candau, S. Chávez and M. Beato (1995).
Transcriptional control by steroid hormone: the role of chromatin.
In Non-reproductive actions of sex steroids. G.R. Bock and J.A. Goode (Eds.). Ciba Foundation. John Wiley and sons. Chichester, Great Britain, pp. 7-23.

S. Chávez, R. Candau, M. Truss and M. Beato (1995).
Constitutive repression and NFI-dependent hormone activation of the Mouse Mammary Tumor Virus Promoter in *Saccharomyces cerevisiae*.
Molecular and Cellular Biology 15: 6987-6998.

A. Diaz, F. Navarro, M. Hervas, J.A. Navarro, S. Chávez, F.J. Florencio and M.A. de la Rosa (1994).
Cloning and correct expression in *E. coli* of the *petJ* gene encoding cytochrome c-6 from *Synechocystis* 6803
FEBS Letters: 347: 173-177.

J.C. Reyes, S. Chávez, M.I. Muro-Pastor, P. Candau and F.J. Florencio (1993).
Effect of glucose utilisation on nitrite excretion by the unicellular cyanobacterium *Synechocystis* sp. strain PCC 6803
Applied and Environmental Microbiology 59: 3161- 3163.

M. Hervás, F. Navarro, J. A. Navarro, S. Chávez, A. Díaz, F. J. Florencio and M. A. de la Rosa (1993).
Synechocystis 6803 plastocyanin isolated from both the cyanobacterium and *E. coli* transformed cells are identical
FEBS Letters 319: 257-260.

P. Marraccini, C. Cassier-Chauvat, S. Bulteau, S. Chávez and F. Chauvat (1993).
Light-regulated promoters from *Synechocystis* PCC6803 share a consensus motif involved in photoregulation
Molecular Microbiology 12: 1005-1012.

F.J. Florencio, S. Chávez, S. Marqués, A. Mérida, M.I. Muro, J.C. Reyes and P. Candau (1992).
Interaction between photosynthesis and ammonium assimilation in unicellular cyanobacterium
Trends in Photosynthesis Research pp 231- 240. Intercept Ltd. Andover (UK).

S. Chávez, F.J. Florencio and P. Candau (1992).
Estudio del gen estructural de la NADP-glutamato deshidrogenasa de la cianobacteria *Synechocystis* sp. PCC 6803
Metabolismo del Nitrógeno pp. 120-124. Sociedad Española de Bioquímica, Córdoba.

S. Chávez and P. Candau (1991).
An NAD-specific glutamate dehydrogenase from cyanobacteria: identification and properties.
FEBS Letters 285: 35-38.

Relevant Patents

A. Gañán, S. Chávez and A. Cebolla (**2002**)

Matrices de conductos capilares de utilidad química y biológica. (Arrays of capillary tubes for chemical and biological use) (AU2003215884)

Flores-Mosquera, M.; Rodríguez Gil, A.; Gañán-Calvo, A.; Chávez, S.; Cebolla A. (**2004**)

Soporte sólido para la unión y/o síntesis química en fase sólida y procedimiento de utilización.(W06018462)

Gañán Calvo, A.; Martín Banderas, L.; Flores Mosquera, M.; Rodríguez Gil, A.; Chávez, S.; Cebolla, A. (**2005**)

Procedimiento y dispositivo para la obtención de partículas de tamaño micro y nanométrico. (W06082263) Licensed to Ingeniatrics Tecnologías

Flores Mosquera, M.; de Castro, E.; Cebolla, A.; Chávez, S.; Gañán Calvo, A.; (**2005**)

Procedimiento de preparación de partículas de tamaño micro y nanométrico con productos lábiles.

(W06117422) Licensed to Ingeniatrics Tecnologías

M.J. Quintero, M. Arévalo Á. Cebolla, S. Chávez . (**2006**)

Procedimiento de expresión regulada de genes en células eucarióticas y elementos para su realización.

Licensed to BIOMEDAL, SL

Spin-off companies

Founder of Ingeniatrics Tecnologías, SL (Spain).

Seville, February the 3rd, 2022.