

UNIVERSITÀ DEGLI STUDI DI MILANO

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ANTONIO CHAVES SANJUAN CURRICULUM VITAE

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	CHAVES SANJUAN
NOME	ANTONIO
DATA DI NASCITA	18/10/1986

WORK EXPERIENCE

- 01/09/2019–Present **Postdoctoral Research Fellow**
Dipartimento di Bioscienze. Università degli Studi di Milano.
- 01/09/2015–31/08/2019 **Postdoctoral Research Fellow**
Dipartimento di Bioscienze. Università degli Studi di Milano.
- 01/09/2014–31/08/2015 **Postdoctoral Research Assistant**
Instituto de Química-Física 'Rocasolano', (CSIC).
- 01/09/2009–31/08/2014 **PhD Student**
Instituto de Química-Física 'Rocasolano', (CSIC).

EDUCATION AND TRAINING

- 01/09/2009–31/08/2014 **Doctor of Philosophy (Ph.D.) in Crystallography and Crystallization**
Universidad Internacional Menéndez Pelayo, Madrid (Spain)
- 01/09/2009–31/08/2010 **Master's Degree in Crystallography and Crystallization**
Universidad Internacional Menéndez Pelayo, Madrid (Spain)
- 01/09/2004–31/08/2009 **Bachelor's degree in Chemistry (pre-Bologna, five-year degree)**
Universidad de Sevilla, Sevilla (Spain)

PERSONAL SKILLS

Mother tongue Spanish

Foreign languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Italian	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

ADDITIONAL INFORMATION

Publications

Articles in peer-reviewed journals:

13. MJ Sanchez-Barrena, A Chaves-Sanjuan, N Raddatz, I Mendoza, , A Cortes, F Gago, JM Gonzalez-Rubio, JL Benavente, FJ Quintero, JM Pardo, A Albert (2020) Recognition and activation of the plant AKT1 potassium channel by the kinase CIPK23. *Plant Physiology*
12. Molla G, **Chaves-Sanjuan A***, Savinelli A, Nardini M, Pollegioni L (2019) Structure and kinetic properties of human D-aspartate oxidase, the enzyme-controlling D-aspartate levels in brain. *The FASEB journal*. DOI: 10.1096/fj.201901703R ***Co-first author**
11. Fuchsbaauer O, Swuec P, Zimmerger C, Amigues B, Levesque S, Agudelo D, Durringer A, **Chaves-Sanjuan A**, Spinelli S, Rousseau GM, Velimirovic M, Bolognesi M, Roussel A, Cambillau C, Moineau S, Doyon Y, Goulet A. (2019) Cas9 Allosteric Inhibition by the Anti-CRISPR Protein AcrIIA6. *Molecular Cell*. DOI: 10.1016/j.molcel.2019.09.012
10. P Swuec, **A Chaves-Sanjuan**, C Camilloni, MA Vanoni, M Bolognesi (2019) Cryo-EM Structures of *Azospirillum brasilense* Glutamate Synthase in its Oligomeric Assemblies. *Journal of Molecular Biology*. DOI: 10.1016/j.jmb.2019.08.011
9. C Roca, L Martinez-González, M Daniel-Mozo, J Sastre, L Infantes, A Mansilla, **A Chaves-Sanjuan**, JM González-Rubio, C Gil, FJ Cañada, A Martínez, MJ Sanchez-Barrena, NE Campillo (2018) Deciphering the Inhibition of the Neuronal Calcium Sensor 1 and the Guanine Exchange Factor Ric8a with a Small Phenothiazine Molecule for the Rational Generation of Therapeutic Synapse Function Regulators. *Journal of Medicinal Chemistry ASAP*. DOI: 10.1021/acs.jmedchem.8b00088
8. A Saponaro, A Porro, **A Chaves-Sanjuan**, M Nardini, O Rauh, G Thiel, A Moroni (2017) Fusaric acid Activates KAT1 Channels by Stabilizing their Interaction with 14-3-3-Proteins. *The Plant Cell* 29:2570-2580. DOI: 10.1105/tpc.17.00375
7. N Gnesutta, D Saad, **A Chaves-Sanjuan**, R Mantovani, M Nardini (2017) Crystal Structure of the Arabidopsis thaliana L1L/NF-YC3 Histone-fold Dimer Reveals Specificities of the LEC1 Family of NF-Y Subunits in Plants. *Molecular Plant* 10, 645-648. DOI: 10.1016/j.molp.2016.11.006
6. A Mansilla, **A Chaves-Sanjuan***, NE Campillo, O Semelidou, L Martínez-González, L Infantes, J María González-Rubio, C Gil, S Conde, EMC Skoulakis, A Ferrús, A Martínez, MJ Sánchez-Barrena (2017) Interference of the complex between NCS-1 and Ric8a with phenothiazines regulates synaptic function and is an approach for fragile X syndrome. *Proceedings of the National Academy of Sciences* 114 (6) E999-E1008. DOI: 10.1073/pnas.1611089114 ***Co-first author**
5. V Nardone, **A Chaves-Sanjuan***, M Nardini (2017) Structural determinants for NF-Y/DNA interaction at the CCAAT box. *Biochimica et Biophysica Acta (BBA)-Gene Regulatory Mechanisms*. 1860, 571-580. DOI: 10.1016/j.bbagg.2016.09.006 ***Co-first author**
4. **Chaves-Sanjuan A**, Sanchez-Barrena MJ, Gonzalez-Rubio JM, Moreno M, Ragel P, Jimenez M, Pardo JM, Martinez-Ripoll M, Quintero FJ and Albert A (2014) Structural basis of the regulatory mechanism of the plant CIPK family of protein kinases controlling ion homeostasis and abiotic stress. *Proceedings of the National Academy of Sciences* 111 (42) E4532-E4541. DOI: 10.1073/pnas.1407610111
3. Romero-Pozuelo J, Dason JS, Mansilla A, Baños-Mateos S, Sardina JL, **Chaves-Sanjuan A**, Jurado-Gómez J, Santana E, Atwood HL, Hernández-Hernández A, Sánchez-Barrena MJ, y Ferrus A (2014) The guanine-exchange factor Ric8a binds to the Ca²⁺ sensor NCS-1 to regulate synapse number and neurotransmitter release. *Journal of Cell Science* 127(19): 4246-59. DOI: 10.1242/jcs.152603
2. Baños-Mateos S, **Chaves-Sanjuan A**, Mansilla A, Ferrús A, Sánchez-Barrena MJ (2014) Frq2 from *Drosophila melanogaster*: cloning, expression, purification, crystallization and preliminary X-ray analysis. *Acta Crystallographica Section F* 70: 530-534. DOI: 10.1107/S2053230X14005408

1. **Chaves-Sanjuán A**, Sánchez-Barrena MJ, González-Rubio JM, Albert A (2014) Preliminary crystallographic analysis of the ankyrin-repeat domain of *Arabidopsis thaliana* AKT1: identification of the domain boundaries for protein crystallization. *Acta Crystallographica Section F* 70: 509-512. DOI: 10.1107/S2053230X14005093

Other publications:

- A Mansilla, **A Chaves-Sanjuan**, C Roca, A Canal-Martin, M Daniel-Mozo, L Martinez-Gonzalez, L Infantes, A Ferrus, A Martinez, R Perez-Fernandez, N Campillo, MJ Sanchez-Barrena (2019) New protein-protein interaction modulators for the therapeutic regulation of synapse dysfunction in neurodevelopmental disorders and neurodegeneration. *European Biophysics Journal with Biophysics Letters* 48, S48-S48. (published conference proceeding)
- MJ Sanchez-Barrena, A Mansilla, **A Chaves-Sanjuan**, N Campillo, O Semelidou, L Martinez-Gonzalez, E Skoulakis, A Ferrus, A Martinez (2018) An aminophenothiazine inhibitor of the NCS-1/Ric8a complex regulates synaptic function in fragile X Syndrome. *Acta Crystallographica Section A: Foundations and Advances* A74, E38-E39. DOI: 10.1107/S2053273318094639 (published conference proceeding)
- A Saponaro, A Porro, **A Chaves-Sanjuan**, M Nardini, C Donadoni, G Thiel, A Moroni (2017) Exploring New Pharmacological Perspectives of Fusicoccin, A Stabilizer of 14-3-3 - Target Protein Complex. *Biophysical Journal* 112 (3), 339a. (published conference proceeding)
- **A. C. Sanjuán**, M. D. Vergara, M. M. Ripoll, A. A. de la Cruz, M. J. S. Barrena (2011) Regulation of an *Arabidopsis thaliana* potassium channel. *Acta Crystallographica Section A: Foundations and Advances* A67, C349-C349. DOI: 10.1107/S0108767311091227 (published conference proceeding)

Awards

- 3 - **“Crystallization of Biomolecules” Best Oral Presentation Award** -Young Researcher (Conference Award, Structural Biology, Under-32, Molecular Dimensions). 2017.
- 2 - **José Tormo Award** (National Research Award, Structural Biology, Under-33, Bruker). 2017.
- 1 - **Xavier Solans Award** (National Research Award, Structural Biology, Under-36, Bruker). 2015.

Conferences

Lectures:

9. **A Chaves-Sanjuan**, M Lapi, I Cornaciu, J Márquez, M Nardini Structural based inhibition of the NF-Y transcription factor [1st Italian Crystallographic Association Biological MacroMolecules Group Meeting]. 20-21th February 2020, Fiesole (Italy).
8. **A Chaves-Sanjuan**, N Gnesutta, R Mantovani, M Nardini. *Structural insights of NF-Y in plants* [XXV Workshop. Advances in Molecular Biology by young researchers aboard]. 20th December 2017, Madrid (Spain).
7. **A Chaves-Sanjuan**, V Nardone, M Nardini. *Optimizing protein/DNA complex crystallization: the case of NF-Y transcription factor*. [Italian Crystal Growth 2017]. 20-21th November 2017, Milan (Italy).
6. **A Chaves-Sanjuan**, MA Mansilla, NE Campillo, O Semelidou, L Martínez-González, L Infantes, JM González-Rubio, C Gil, EMC Skoulakis, A Ferrús, A Martínez, MJ Sánchez-Barrena. *Phenothiazines regulate synaptic function by interfering the NCS-1/Ric8a complex: An approach for Fragile X Syndrome*. [FEBS3+ Barcelona 2017]. 23-26th October 2017, Barcelona (Spain).
5. **A. Chaves Sanjuán**, M.J. Sanchez-Barrena, J.M. Gonzalez-Rubio, M. Moreno, M. Jimenez, M. Martinez-Ripoll and A. Albert. *The structure of the CBL-CIPK pathway: the regulation of Arabidopsis thaliana ion homeostasis Structural basis of the regulatory mechanism of the plant CIPK family of protein kinases controlling ion homeostasis and abiotic stress*, [XXXV Bional RSEQ Meeting]. 19-23th July 2015, A Coruña (Spain).
4. **Antonio Chaves-Sanjuán**, Baños-Mateos S, Martinez A, Gil C, Campillo NE, Mansilla A, Ferrús A, Sánchez-Barrena MJ. *Frequenin/NCS-1 as a pharmacological target for synapse regulation in X-linked mental retardation and autism*, [II Simposio de Jóvenes Investigadores de IQFR]. 26th February 2015, Madrid (Spain).
3. **Antonio Chaves Sanjuán**, María Moreno Alvero, Araceli Flores, Martín Martínez-Ripoll, María José Sánchez-Barrena, Armando Albert. *The structure of the CBL-CIPK pathway: the regulation of Arabidopsis thaliana ion homeostasis*, [Meeting of the Italian, Spanish and Swiss Crystallographic Associations. MISSCA 2013]. 9-12th September 2013, Villa Olmo, Como (Italy).
2. **A. Chaves**, M.J. Sánchez, M. Martínez, A. Albert. *Regulation of an Arabidopsis thaliana potassium channel*, [XXII Simposio del grupo especializado de cristalografía y crecimiento cristalino]. 26-29th June 2012, Sevilla (Spain).
1. **Antonio Chaves Sanjuán**. *Facile splitting of hydrogen and ammonia by nucleophilic activation at a single carbon center*, [IV Congreso de Estudiantes de Química]. 19th May 2009, Universidad de Sevilla, Sevilla (Spain).

Posters:

3. **Chaves-Sanjuan A**, Swuec P, Camilloni C, Vanoni MA, Fuchsbauer O, Zimmerger C, Amigues B, Levesque S, Agudelo D, Durringer A, Spinelli S, Geneviève M, Roussel A, Cambillau C, Doyon Y, Goulet A, Bolognesi M (2019) *Model building challenges on Cryo-EM maps*, [SIB 2019 60th Congress]. 18-20th September 2019, Lecce (Italy).
2. **Antonio Chaves Sanjuán**, Maira Diaz Vergara, Martín Martinez Ripoll, Armando Albert de la Cruz, María José Sánchez Barrena (2011) *Regulation of an Arabidopsis thaliana potassium channel*, [XXII Congress and General Assembly of the International Union of Crystallography, IUCr 2011]. 22-30th August 2011, Madrid (Spain).
1. **Antonio Chaves Sanjuán**, Maira Diaz Vergara, Martín Martinez Ripoll, Armando Albert de la Cruz, María José Sánchez Barrena (2011) *Regulation of an Arabidopsis thaliana potassium channel*, [International School on Biological Crystallization 3rd Edition]. 22-26th May 2011, Granada (Spain).

Courses

2. International School on Biological Crystallization 3rd Edition (ISBC 2011). 22-26th May 2011. IACT (CSIC-UGR), Granada (Spain).
1. Macromolecular Crystallography School (MCS 2010). 26-30th April 2010. IQFR (CSIC), Madrid (Spain).

Student tutoring

- Michela Lapi (ongoing), PhD student, co-supervising with Prof. M. Nadrini
- Nicolò Centanni (2018), Undergraduate student, co-supervised with Prof. M. Nardini
- Andrea Gobbini (2016), Master student, co-supervised with Prof. M. Nardini

Data

03/09/2020

Luogo

MILANO